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A

Residents' and Environmental Services Policy Overview Committee

Councillors on the Committee

Michael White (Chairman)
Teji Barnes (Vice-Chairman)
Mohinder Birah
Peter Davis
Patricia Jackson
Kuldeep Lakhmana (Labour Lead)
Judy Kelly
Brian Stead
Jas Dhot

Date: **WEDNESDAY, 23 MARCH 2016**

Time: **5.30 PM**

Venue: **COMMITTEE ROOM 5 - CIVIC CENTRE, HIGH STREET, UXBRIDGE UB8 1UW**

Meeting Details: Members of the Public and Press are welcome to attend this meeting

Published: Tuesday, 15 March 2016

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This Agenda is available online at:
http://modgov.hillingdon.gov.uk/ieListMeetings.aspx?CId=114&Year=0

Putting our residents first

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Head of Democratic Services
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www.hillingdon.gov.uk

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Terms of Reference

A central role of a Policy Overview Committees is to undertake in-depth policy reviews on specific issues. Reviews provide the opportunity to hear from members of the public and expert witnesses, including people from a wide range of external organisations. Reviews usually make recommendations to the Cabinet on how the Council could improve its work. They therefore perform an important role in opening up the policy-making process to a wider audience, including people who would not normally have the opportunity to participate.

This Committee undertakes the policy overview role in relation to the following matters:

- Highways, traffic, parking & street environment
- Local transport, including rail, cycling & London Underground
- Footpaths and Bridleways
- Road safety and education
- Planning & Building Control
- Libraries
- The Borough's heritage and history
- Sport & Leisure services
- Waste management & recycling
- Green spaces, allotments, woodlands, conservation and sustainable development
- Consumer Protection, Trading Standards & Licensing
- Registrars & Bereavement Services
- Local watercourses, drainage and flooding
- Environmental Health, Air & Noise Quality
- Local impacts of Heathrow expansion
- Local impacts of High Speed Rail

Agenda

Chairman's Announcements

1	Apologies for Absence	
2	Declaration of Interest in matters coming before this meeting	
3	To confirm that all items marked Part 1 will be considered in Public and that any items marked Part 2 will be considered in Private	
4	To agree the Minutes of the previous meeting	1 - 4
5	Local Flood Risk Management Strategy	5 - 108
6	Residents' & Environmental Services Policy Overview Committee - Major Review 2015/16 - Mechanisms for Reviewing Major Developments in the Borough and Identifying Lessons to be Learned for the Planning Process	

Draft report to follow.

7	Forward Plan	109 - 112
8	Work Programme	113 - 114

Minutes

RESIDENTS' AND ENVIRONMENTAL SERVICES POLICY OVERVIEW COMMITTEE

Wednesday 24 February 2016
Meeting held at Committee Room 4- Civic Centre, High Street, Uxbridge UB8 1UW

	Committee Members Present: Councillors Michael White (Chairman), Teji Barnes (Vice-Chairman), Mohinder Birah, Peter Davis, Jas Dhot, Patricia Jackson, Judy Kelly, Kuldeep Lakhmana and Brian Stead. **Officers:** Chris Mansfield (Deputy Director, Planning and Transportation), James Rodger (Head of Planning and Enforcement) and Khalid Ahmed (Democratic Services Manager).	
49.	**TO CONFIRM THAT ALL ITEMS MARKED PART I WILL BE CONSIDERED IN PUBLIC AND THAT ANY ITEMS MARKED PART II WILL BE CONSIDERED IN PRIVATE** It was confirmed that all items on the agenda would be considered in public.	
50.	**MINUTES OF THE PREVIOUS MEETING HELD ON 19 JANUARY 2016** Agreed as an accurate record. [In relation to Minute No. 45 - Residents' & Environmental Services Policy Overview Committee - Major Review 2015/16 - Mechanism for Reviewing Major Developments in the Borough and Identifying Lessons to be Learned for the Planning Process - officers reported that the comments which had been made by witnesses on their perception of local government's role in the process for developments should be amended as they did not reflect what had been said. They should read that "the applicants' perceptions were that Central Government was encouraging development whilst planning authorities had to give full detailed consideration to all planning applications, which slowed the process down."]	
51.	**RESIDENTS' & ENVIRONMENTAL SERVICES POLICY OVERVIEW COMMITTEE - MAJOR REVIEW 2015/16 - MECHANISM FOR REVIEWING MAJOR DEVELOPMENTS IN THE BOROUGH AND IDENTIFYING LESSONS TO BE LEARNED FOR THE PLANNING PROCESS** The Committee was provided with a summary of the evidence received during the review, together with areas which Members could discuss in relation to suggested recommendations. After discussion the Committee asked that consideration be given to the following suggested recommendations:	**Action By:**

		Action By:
	(i) The Council undertook post development review of planning decisions. (ii) The Members of the Planning Committees needed to visit high profile developments (once a year) that the Council had approved to understand and learn lessons from decisions made. This should also include an invitation to the Cabinet Member for Planning, Transportation and Recycling. Also where appropriate, the Chairman of the Licensing Committee be invited to attend to visit those premises which required licensing (i.e hotels, restaurants, bars, casinos etc). (iii) The costs of this should be considered as part of the member development budget. (iv) There needed to be a properly established evaluation process that occurred during the site visits which included consideration of changes that occurred to the development post Committee, whether the planning conditions were fit for purpose and a means of evaluating what the end users thought of the development. (v) The architect/scheme designers from each development which were the subject of the site visit be encouraged to contribute into the post development review process (so Councillors and officers could hear their views). (vi) Ward Councillors should be given a list of sites the Committee would visit and asked if they had any feedback to give on particular developments in their Wards, in particular what end users and neighbours have told the Ward Councillors they thought of the development in question. (vii) That any suggested changes brought about by post development review be fed back into the planning process as part of the ongoing updating of planning policies. (vii) That it be noted that this review process should be about lessons learnt to strengthen Planning Committee decision making going forward and not for enforcement activity purposes. The Chairman thanked officers for their attendance and asked that for the next meeting of the Committee, a draft final report with the above suggested recommendations be presented for Members consideration. **RESOLVED –** **1. That the information provided be noted and officers be asked to submit a draft final report on the review for Members' consideration.**	**James Rodger / Khalid Ahmed**

		Action By:
52.	**FORWARD PLAN** Noted.	
53.	**WORK PROGRAMME** The Committee asked that consideration be given to briefings at future meetings on the Music Service, the Funding of Arts in the Borough and on Allotments. Noted.	
	Meeting commenced at 5.30pm and closed at 6.00pm **Next meeting: 23 March 2016 2015 at 5.30pm**	

These are the minutes of the above meeting. For more information on any of the resolutions please contact Khalid Ahmed on 01895 250833. These minutes are circulated to Councillors, Officers, the Press and Members of the Public.

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Local Flood Risk Management Strategy

Contact Officers: Alex Quayle / Victoria Boorman
Telephone: 01895 250692 / 01895 277920

REASON FOR ITEM

Members of the Committee had previously requested an update on flooding provision. This item is included to introduce the revised strategy to the Committee following presentation to Cabinet on 17 March 2016.

OPTIONS OPEN TO THE COMMITTEE

The Committee is asked to note the contents of the Local Flood Risk Management Strategy.

BACKGROUND

1. Hillingdon is required to develop, maintain, apply and monitor a local strategy for local flood risk management in its area. Local flood risk is defined as flooding caused by the following sources; surface water, groundwater, and ordinary watercourses.

2. This Local Flood Risk Management Strategy provides an overview of the assessment of flood risks already undertaken in other documents, and sets out a framework for the management of local flood risk in the London Borough of Hillingdon, by the Council and other relevant bodies.

3. Vicky Boorman, Flood and Water Management Specialist, will attend the meeting and provide Members with details of the proposed changes and to answer Member's questions.

4. The updated strategy was presented to Cabinet on 17 March 2016.

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Local Flood Risk Management Strategy 2015

A strategy to define the approach within the London Borough of Hillingdon to the management of flood risk from local sources, with proposals for measures and actions to help manage that risk.

Report Author:	Flood and Water Management Officer
Report Date:	February 2016
Revision:	Final

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Executive Summary

The production of this Strategy and its public consultation and specific elements of its contents are a legal requirement of the Flood and Water Management Act 2010.

Hillingdon is required to develop, maintain, apply and monitor a local strategy for local flood risk management in its area.

Local flood risk is defined as flooding caused by the following sources; surface water, groundwater, and ordinary watercourses.

This Local Flood Risk Management Strategy provides an overview of the assessment of flood risks already undertaken in other documents, and sets out a framework for the management of local flood risk in the London Borough of Hillingdon, by the Council and other relevant bodies.

This strategy is supported by the already published Flood Risk Management Portfolio of documentation which contains other critical legal documents such as the Preliminary Flood Risk Assessment, Strategic Flood Risk Assessment and Surface Water Management Plan Parts1 and 2. These provide the evidence base for this strategy with more detailed information on the flood risks in Hillingdon and actions.

These documents are recognised as complex and have been undertaken in compliance with the legislative requirements and are borough wide rather than on a site specific basis useful to residents.

The Council website, has therefore been updated with key information for residents, on the action to prepare for a flood event, and during a flood event and who to contact for different types of flooding.

Contents

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Figures

1. Introduction

1.1. What is a Local Flood Risk Management Strategy (FRMS)?

The Flood and Water **Management** Act (FWMA) 2010 requires a Lead Local Flood Authority (LLFA), to develop, maintain, apply and monitor a strategy for local flood risk management in its area. Local flood risk is defined by the Flood and Water Management Act as flooding from surface water, groundwater and ordinary watercourses.

The LLFA is responsible for ensuring a strategy is put in place. Hillingdon, as a London Borough and unitary authority, is a Lead Local Flood Authority and thus responsible for publishing a Local Flood Risk Management Strategy (LFRMS).

The Local Flood Risk Management Strategy, once approved by Cabinet, will be a statutory document, which will impact on the activities of all flood risk management authorities active in the Borough. These bodies will all have a 'duty to act consistently with the local strategy' when undertaking their flood and coastal erosion risk management functions and have a 'duty to have regard for the strategy' when discharging other duties that may affect flood and coastal risk (for example spatial planning and development).

This document will explain the need for a Local Flood Risk Management Strategy for Hillingdon, the evidence available to inform it, and the responsibilities each of the different parties has in managing flood risk. It will complement and support the national strategy.

It aims to be a coordinated plan which balances the needs of the communities, the economy and the environment, to support the aim of reducing flood risk, to the best of its abilities. The strategy will identify objectives, based on the available evidence, and set out ways to achieve them, within the limited resources available.

The strategy is supported by other documents all of which form the Flood Risk Portfolio of documentation for Hillingdon. These provide the flooding evidence and further information as to how Hillingdon is complying with other specific duties of the 'FWMA'.

1.2. What is local flood risk?

Local flooding is defined as flooding from surface water, groundwater and ordinary watercourses.

Flooding is a natural phenomenon, the adverse effects of which can be made worse by poor management of the landscape and environment and failure to address known risks.

These local sources of flooding are caused by storms which are hard to forecast, blockages or poor maintenance. There are also complex interactions between these sources and other sources such as sewer and river flooding. The consequential flooding is therefore unpredictable in location and severity.

There are a number of actions that can be taken to reduce the likelihood of local floods, including green infrastructure, Sustainable Drainage (SuDs) such as permeable surfacing, management of existing flood risk assets such as gullies, and adapting buildings.

Local flood risk management must promote adaptation and preparation in advance of an event rather than mobilisation during flood events, with the toleration of a residual level of risk, accepting that some disruption may be caused temporarily.

Flooding from these sources is generally more localised than flooding from rivers, but cooperation and integrated planning is required from all the risk management authorities involved in order to understand where the risks are and how to manage them effectively.

1.3. Why is a Local Flood Risk Management Strategy needed?

The last decade has witnessed some devastating floods across the country. The floods in summer 2007 were particularly severe, affecting a large number of communities. As a result the Government commissioned Sir Michael Pitt to review the flood risk in this country. Published in June 2008, the Pitt Review[1] identified six themes for improving the situation for those at risk of flooding:

- Knowing when and where it will flood,
- Improved planning and reducing the risk of flooding and its impact;
- Being rescued and cared for in an emergency;
- Maintaining power and water supplies and protecting essential services;
- Better advice and helping people to protect their families and homes; and
- Staying healthy and speeding up recovery.

The 92 recommendations made to Government, local authorities, Local Resilience Forums, providers of essential services, insurers and others, including the general public, were transposed into a new piece of legislation, namely the Flood and Water Management Act (FWMA) 2010.

The FWMA 2010, amongst many other duties, requires every LLFA to create a Flood Risk Management Strategy.

1.4. What should a Local Flood Risk Management Strategy contain?

This strategy has been prepared using the information which is currently available. This is liable to change with any new flood event, which may change at any time.

The Local Flood Risk Management Strategy must be consistent with the National Flood Risk Management Strategy[2] produced by the Environment Agency. The following six Guiding Principles have been included in the formation of this document:

- Community focus and partnership working
- A catchment and coastal cell based approach
- Sustainability
- Proportionate and risk based approaches
- Multiple benefits
- Beneficiaries should be allowed and encourage to invest in local flood risk management

Section 9 of the Flood and Water Management Act sets out the statutory requirements for Local Flood Risk Management Strategies. Table 1 sets out the requirements of the Local Flood Risk Management Strategy and details what the Strategy must specify in summary.

[1] http://webarchive.nationalarchives.gov.uk/20100807034701/http:/archive.cabinetoffice.gov.uk/pittreview/thepittreview/final_report.html
[2] https://www.gov.uk/government/publications/national-flood-and-coastal-erosion-risk-management-strategy-for-england

FWMA requirements	Section within LFRMS	Page
The Flood Risk Management Authorities in the London Borough of Hillingdon	Roles, responsibility and functions	21
The flood risk functions that may be exercised by those authorities	Roles, responsibility and functions	21
The objectives for managing local flood risk	Appendix 3	
The measures proposed to achieve the objectives	Appendix 3	
How and when the measure are expected to be implemented	Appendix 3	
The costs and benefits of those measures and how they are to be paid for	Funding	30
The assessment of local flood risk for the purpose of the strategy	Hillingdon	16
How and when the strategy is to be reviewed	Monitoring and review	35
How the strategy contributes to the wider environmental objectives	Sustainability	34

Table 1: *Requirements of the Local Flood Risk Management Strategy*

The Council has sought community involvement in the development of the document by consulting residents who have experienced flooding within the Borough in the three years prior to October 2015. The consultation asked property owners about their knowledge of flood risk and understanding of the current documentation, so as to determine if the priorities already established in the Surface Water Management Plan (SWMP) in the Flood Risk Portfolio are aligned with those of the public. This feedback has been taken into account within the document.

This document will be a living document, to be updated as roles and responsibilities change and as the various provisions of the Flood and Water Management Act are commenced.

This document is issued for public consultation as required by the 'FWMA'. The 'LFRMS' is available on the Council's website. It has also been sent to key partners of the Council. All feedback will be collected and will be used in reviews of the LFRMS.

2. Policy and legislative context

The management of flood risk in the London Borough of Hillingdon is informed by the requirements and evidence within a growing number of relevant European, national legislation, policies and non-statutory plans, relating to flood risk management. The most significant of which are outlined in Figure 1: "Flood Risk Management Overview" and detailed in Appendix 1.

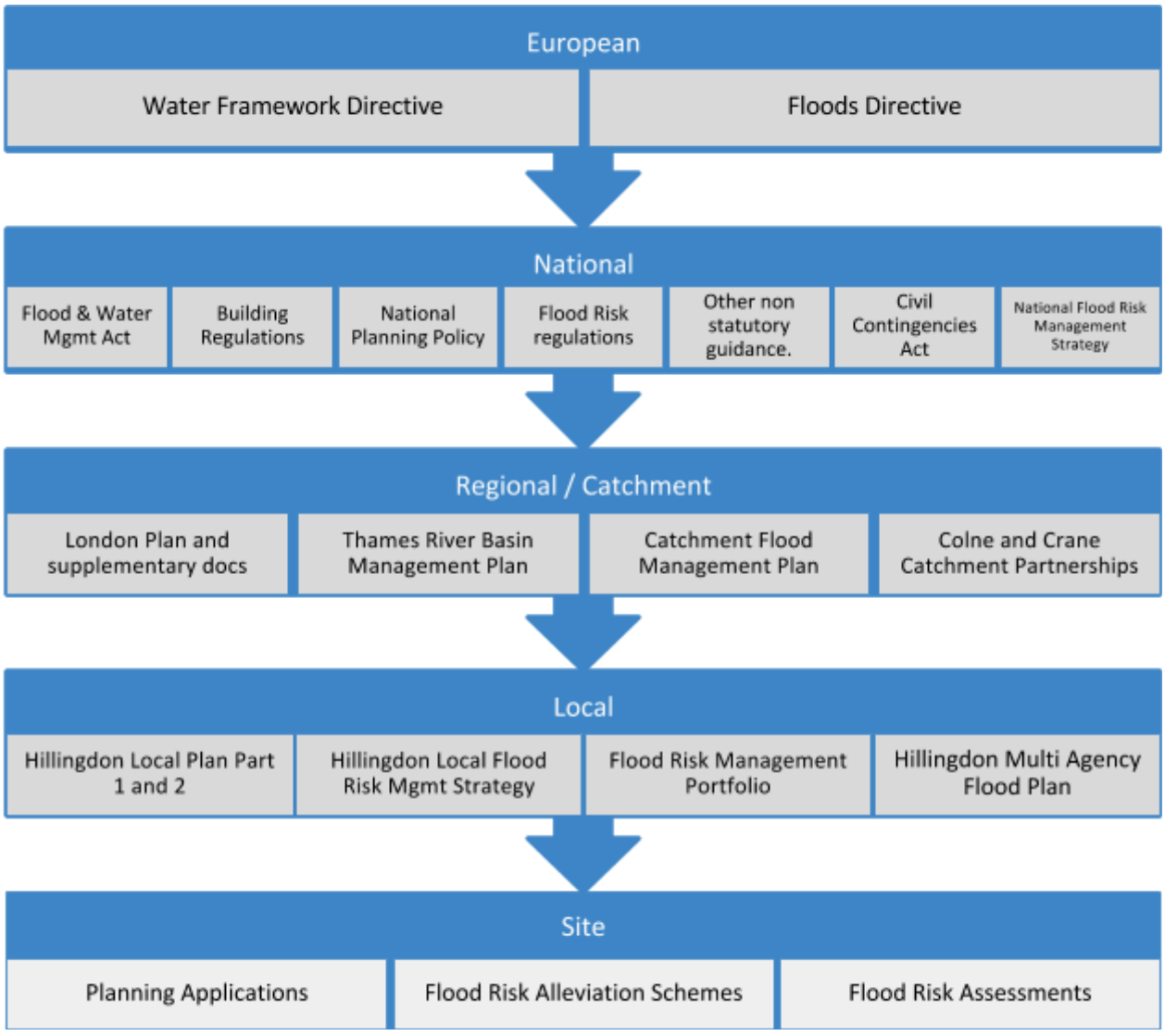

Figure 1: *Flood Risk Management Overview*

Locally specific policies and requirements which must be applied to developments are listed below:

2.1. Regional

The London Plan[3] produced by the Mayor of London contains various policies, supporting documentation and plans relating to flood risk as follows:

Policy 5.11 Green Roofs and development site environs.

This policy promotes the use of green roofs and walls where feasible, to deliver objectives including sustainable urban drainage amongst other wider environmental and sustainability benefits

Policy 5.12 Flood Risk Management.

This policy states that the Mayor will work with all relevant agencies, including the Environment Agency, to address current and future flood issues and minimise risks in a sustainable and cost effective way.

Development proposals must comply with the flood risk assessment and management requirements set out in National Planning Practice Framework (NPPF) over the lifetime of the development and have regard to measures proposed in Thames Estuary 2100 and Catchment Flood Management Plans.

Policy 5.13 Sustainable Drainage.

Development should utilise urban drainage systems (SUDS), unless there are practical reasons for not doing so, and should aim to achieve Greenfield run-off rates and ensure that surface water run-off is managed as close to its source as possible, in line with the following drainage hierarchy:

- *Store rainwater for later use*
- *Use infiltration techniques, such as porous surfaces in non clay areas*
- *Attenuate rainwater in ponds or pen water features for gradual release.*
- *Attenuate rainwater by storing in tanks or sealed water features for gradual release*
- *Discharge rainwater direct to a watercourse*
- *Discharge rainwater to a surface water sewer/drain and*
- *Discharge rainwater to the combined sewer*

Drainage should be designed and implemented in ways that deliver other policy objectives of the Plan, including water use efficiency and quality, biodiversity, amenity and recreation.

Further requirements ensure that redevelopment in London aims to reduce surface water run-off to greenfield run-off rates. Sustainable Design and Construction[4] Supplementary

[3] https://www.london.gov.uk/priorities/planning/london-plan

[4] https://www.london.gov.uk/priorities/planning/consultations/draft-sustainable-design-and-construction

Planning Guidance sets out a minimum target of a 50% reduction. The London Sustainable Drainage Action Plan[5] also identifies further actions.

The Regional Flood Risk Appraisal[6] includes an overview of the different types of flood risk in London and provides a spatial analysis of tidal, fluvial and surface water flood risk against major development locations, key infrastructure assets and services.

The All London Green Grid[7] SPG 2012 is also key in identifying opportunities within the Borough for the provision of Green infrastructure. This Borough falls in Green Grid Area 10, 'River Colne and Crane'. There are a number of mutual benefits to managing flooding through developing strategic green infrastructure and providing space for water and waterside habitat naturalisation as well as meeting other targets for access to open space. The areas where green grid infrastructure opportunities exist and flood risk reduction should be improved should be identified to help deliver mutual benefits and apply for wider funding streams.

Securing London's Water Future, the Mayor's Water Strategy[8] also supports the need to address the water cycle by identifying source techniques which help reduce water use and increase resilience in time of drought, as well as contributing to reducing flood risk and promoting green roofs.

Thames River Basin Management Plan 2015[9](RBMP), covers the whole of the River Thames catchment. It explains the current ecological health of the water environment in this river basin district, and what needs to be done to improve them. Annex B highlights key actions for waterbodies in Hillingdon, such as improving floodplain connectivity. All of this, even if on a small scale, can cumulatively contribute to the management of flood risk. As it is produced in 6 yearly cycles, this has just replaced the 2009 version.

Thames Catchment Flood Management Plan 2009[10] (CFMP), Again covers the whole of the Thames Catchment. CFMP's give an overview of the flood risk across each river catchment. It recommends ways of managing those risks now and over the next 50-100 years. This is soon to be replaced, with a draft now available 2015.

*The River Pinn catchment falls in **Policy Option 6***
Areas of low to moderate flood risk where all will take action with others to store water or manage run-off in locations that provide overall flood risk reduction or environmental benefits
*The Colne, Crane and Yeading Brooks fall in **Policy Option 4***
Areas of low, moderate or high flood risk where flood risk is already managed effectively. Action needs to be taken to keep pace with climate change, through adaptation of the urban environment.

5 https://www.london.gov.uk/what-we-do/environment/climate-change-weather-and-water/sustainable-drainage-action-plan

6 https://www.london.gov.uk/priorities/planning/publications/draft-further-alterations-to-the-london-plan-january-2014

7 https://www.london.gov.uk/priorities/environment/greening-london/improving-londons-parks-green-spaces/all-london-green-grid

8 https://www.london.gov.uk/priorities/environment/publications/securing-london-s-water-future-the-mayor-s-water-strategy

9 https://www.gov.uk/government/publications/thames-river-basin-management-plan

10 http://www.environment-agency.gov.uk/research/planning/127387.aspx

Thames Flood Risk Management Plan[11](FRMP) covers the whole of the River Thames catchment. Under the Flood Risk Regulations 2009 (the Regulations) some Lead Local Flood Authorities (LLFAs), Natural Resources Wales and the Environment Agency are required to produce Flood Risk Management Plans[12] by December 2015 in England and Wales. The London Borough of Hillingdon were required to undertake a FRMP as it lies in the London Flood Risk Area.

Rather than prepare separate FRMP, Hillingdon has provided information to the Environment Agency so that it forms part of the Thames FRMP.

> *"consolidated FRMPs in partnership with others so that they cover flooding from main rivers, the sea and reservoirs, as well as from surface water flooding .....all in one place".*

This work was undertaken and consulted upon at the same time as consultation for the draft river basin management plans in order to achieve opportunities for synergies across the wider catchment for concerted action such as with land management measures.

All development in this area should also have regard to the Crane Valley Partnership's catchment plan Objective 4 – Reduced Risk of Flooding in Built-Up Areas, "We need increased innovative solutions to improve the catchment's capacity to store and slowly release stormwater".

2.2. Local

2.2.1 London Borough of Hillingdon's Local Policy

The London Borough of Hillingdon's, Local Plan Part 1[13] Strategic Policies (previously known as the Core Strategy), adopted Nov 2012, forms the first part of the Local Development Framework (LDF) for Hillingdon. It sets out the long-term vision and objectives for the Borough, what is going to happen, where, and how it will be achieved. The Local Plan Part 1 includes broad policies for steering and shaping development.

It includes policies such as EM6 Flood Risk and the EM3 Blue Ribbon Network. Guidelines for decisions about planning applications will be included in Supplementary Planning Documents.

The Local Plan refers to strategies which the London Borough of Hillingdon are drawing up to enable it to deliver the vision set, in regard to the management of flood risk. This includes a Green Spaces Strategy, Tree Management Strategy and Biodiversity Action Plan.

The Local Plan Part 2[14] comprises a Development Management Policies, Site Allocations and Designations and Policies Map. It delivers the detail of the strategic policies set out in the Local Plan Part 1: Strategic Policies (2012). There is further information on both policies EM6 and EM3 relevant to managing flood risk and the water environment. and introduces other including one on new basements to minimise groundwater flood risk issues.

[11] https://consult.environment-agency.gov.uk/portal/ho/flood/draft_frmp/consult?dm_i=1QGB,3R34C,KI58VF,DICTE,1

[12] https://www.gov.uk/guidance/flood-risk-management-plans-what-they-are-and-whos-responsible-for-them

[13] http://www.hillingdon.gov.uk/article/11414/Local-Plan

[14] http://www.hillingdon.gov.uk/lpp2

Together they will form a comprehensive development strategy for the Borough up to 2026.

2.2.2 Flood Risk Management Documents

The London Borough of Hillingdon has created a Flood Risk Management Portfolio[15] of flooding documents, which will provide greater information on flood risk in the Borough, to meet the Council's responsibilities as a Lead Local Flood Authority. This is comprised of the following:

- The **Strategic Flood Risk Assessment (SFRA)** 2008, and updated in 2015, collated all known evidence of flood risk and forms part of the evidence base for the vision and objectives of the Local Plan.

  It provides an understanding of all flood risks at that point in time. There may be additional information on flood risk collected subsequently.
- The **Preliminary Flood Risk Assessment (PFRA)** 2011 for Hillingdon aimed at providing a high level overview of flood risk from all sources within the Borough, including consideration of surface water, groundwater, ordinary watercourses and canals.

  This does not provide detailed site specific information to inform residents of specific risks. PFRA were a requirement of the Flood Risk Regulations, where areas of significant risk are identified. Hillingdon falls within the Greater London Flood Risk Area. The PFRA for Hillingdon was therefore produced as part of a co-ordinated programme of work across Greater London, facilitated by the Drain London Forum and the GLA.

  The PFRA includes a: summary of information on significant historic floods; summary of information on future flood risks based primarily on the Environment Agency's national datasets; as well as a spreadsheet containing information for reporting to the European Commission.

  The work will continue on a 6 year cycle and the first review of the PFRA is due by 22nd December 2017.
- A **Surface Water Management Plan (SWMP)** for Hillingdon has also been completed. This was divided into 2 sections. Part 1, the Evidence Base 2013, and Part 2 the Options and Actions Plan 2014.

  These documents outline the evidence and the surface water management strategy for Hillingdon. They include consideration of flooding from sewers, drains, groundwater and run-off from land, small watercourses and ditches that could occur as a result of heavy rainfall.

  Both have been published and are available on the Council's website. They identify a number of 'Critical Drainage Areas' (CDA) within Hillingdon which require further investigation.
- **Flood Risk Investigation Reports** for Hillingdon. The Flood and Water Management Act 2010 requires the LLFA to investigate significant flood events. These provide a useful summary of key events that may have happened in between the production and updates of the PFRA, SFRA, SWMP etc.

  Recommendations from these will be used to inform future revisions of other plans.

[15] http://www.hillingdon.gov.uk/24117

- **Hillingdon Multi Agency Flood Plan** . The Civil Contingencies Act (2004) requires Category One Responders to have plans in place to respond to all emergencies. This was produced by Hillingdon in 2014 utilising the best available information at the time. As flooding poses a significant risk and is well recognised within many Community Risk Registers, Local Resilience Forums are encouraged to develop a specific flood plan to both complement other plans and to provide more detail to generic Major Incident Plans or Strategic Emergency Response Plans. (Not publically available).
- **Other Local Flood Risk Management Strategies.** The London Borough of Hillingdon lies on the western most boundary of Greater London. A number of watercourses flow from outside London into Hillingdon, and onto other RMA and so all those 'Risk Management Authorities' (RMA) strategies are of interest to the London Borough of Hillingdon.

  Within two tier authorities, the LLFA responsibilities sit in County Councils. The adjacent districts of South Bucks and Chiltern lie within Buckinghamshire County Council and Three Rivers District lies within Hertfordshire County Council, both of which have produced their Local Flood Risk Management Strategies. Slough (A Unitary authority and therefore LLFA) and Spelthorne (District authority within Surrey County Council which is the LLFA), are located on the Colne River.

The Hillingdon Strategy will therefore be of relevance to them. Table 2 on the next page provides links to all the relevant strategies.

LLFA	Strategy
London Borough of Harrow	http://www.harrow.gov.uk/info/100006/environment/1690/local_flood_risk_management_strategy
London Borough of Ealing	https://www.ealing.gov.uk/downloads/download/3484/local_flood_risk_management_strategy
London Borough of Hounslow	http://www.hounslow.gov.uk/index/council_and_democracy/consultations/consultations_archive/flood_risk_management_consultation.htm
Hertfordshire County Council	http://www.hertsdirect.org/services/envplan/water/floods/floodrisk/lfrmsherts/
Buckinghamshire County Council	http://www.buckscc.gov.uk/environment/flooding/strategic-flood-management/flood-management-strategy/
Slough	http://www.slough.gov.uk/council/strategies-plans-and-policies/flooding-and-flood-risk.aspx
Surrey County Council	http://www.surreycc.gov.uk/people-and-community/emergency-planning-and-community-safety/flooding-advice/more-about-flooding/surrey-local-flood-risk-management-strategy

***Table 2** Adjacent Lead Local Flood Authorities*

Figure 2 Map of Adjoining Risk Management Authorities and watercourses', illustrates the Risk Management Authorities, adjacent to Hillingdon.

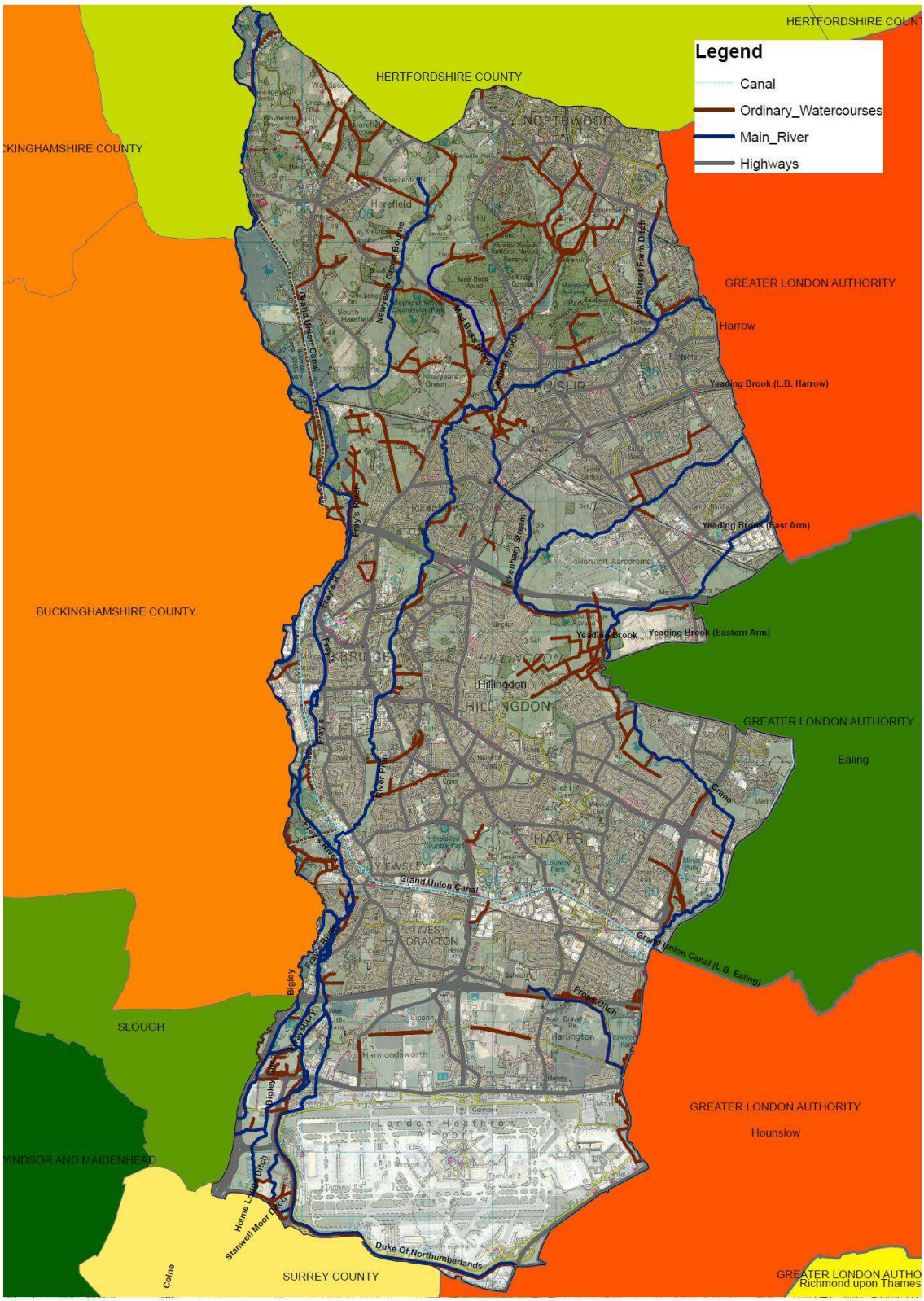

Figure 2: *Map of Adjoining Lead Local Flood Authorities and watercourses*

3. Hillingdon

3.1. Available Evidence / Assessments of Flood Risk

The Council has collected evidence and made assessments on flood risk which inform this strategy. The documents where this information can be found are all available on the Council's website within the Flood Risk Management Portfolio and are detailed in this document in Section 2.2. Local plans and policies page.

In addition there are documents written by other Risk Management Authorities and partners that include relevant evidence. Thus a catchment based approach can be taken in the formulation of any strategy.

3.2. Characteristics of the area

3.2.1 Profile

Hillingdon is London's second largest borough by area, covering 42 sq. mile, (109 sq. kilometres), with a population of 274,000 from the 2011 Census. The borough has a distinctive character with its combination of suburban streets and shopping centres, industrial land, major office developments and large areas of open land, historic woodland and inland waterways including 4,960 hectares of Green Belt. It also contains Heathrow Airport which covers the majority of the South of the Borough.

3.2.2 Geology

The dominant solid geology within Hillingdon is the London Clay Formation. To the north of the Borough, within the vicinity of Ruislip and Northwood, outcrops of the Lambeth group occur within river valleys. Along the western boundary of the district some areas of chalk are located within the vicinity of the River Colne. To the south there are drift deposits overlying the solid geology, consisting of pockets of Langley Silt (sandy clay and silt 'brick earth').

3.2.3 Watercourses

There are two key river catchment areas in which London Borough of Hillingdon falls, the River Colne (contains the River Pinn) and River Crane (also known as the Yeading Brook). Both rivers start in other authorities to the north of Hillingdon before flowing in a generally southerly direction through and out of the borough.

In addition, the Grand Union Canal flows through the Borough, as do a network of smaller rivers called 'ordinary watercourses' which interact with the main rivers. This is important to recognise in the management of flood risk.

Watercourses are shown in Figure 2 on the previous page: 'Map of Watercourses'. They are also shown in more detail on Rivers, Ditches and Canals[16] page on the Hillingdon Website.

3.2.4 Environment Assets

Further baseline data on environmental assets that are within Hillingdon and maybe impacted that any future flood risk schemes should have regard to and aim to support the enhancement of is found is the Strategic Environment Assessment Screening document sections 4.9 Material Assets, 4.10 Cultural Assets and 4.11 Landscape.

[16] http://www.hillingdon.gov.uk/article/28579/Rivers-ditches-and-canals

3.3. Flooding Characteristics

Although this strategy is focused on the management of local flood risk sources such as surface water, groundwater and ordinary watercourses, it is important to understand the other sources of flooding as they are often interlinked and so a description of these are included as well.

3.3.1 Local Flood Risks

3.3.1.1 Surface Water flooding

Surface water occurs when heavy rainfall exceeds the capacity of the ground and local drainage network to absorb it. It can lead to water flowing over the ground and ponding in low lying areas, and is typically caused by short intense rainfall.

It is estimated from the SWMP that approximately 38,300 properties are potentially at risk from surface water flooding, making this the key risk affecting residents in Hillingdon.

These areas likely to be at risk of surface water flooding are identified on the Environment Agency website in their Flood maps.[17] This information supersedes the information established in the Hillingdon Surface Water Management Plan as the extents of flooding.

The SWMP identifies a number of Critical Drainage Areas that should be focused on in developing a strategy to manage flood risk. However prioritisation for action is also based on actual flooding history. Victoria Retail Park identified as a Critical Drainage Area suffered from flooding in August 2015.

Often surface water issues are combined with multiple other sources of flooding which are prevalent in Hillingdon, particularly sewer flooding as when sewers are full it prevents surface water from flowing away and presents as roads flooding.

Climate change and growth pressure could both result in greater frequency and severity of flooding, and so every opportunity through redevelopment should be taken to reduce surface water run off to greenfield run off rates.

Private individuals awareness of responsibilities will be key to managing those risks as Council records show there are increasing reports of private service roads or alley access roads flooding as there are no formal drainage systems or they are not being maintained as ownership is unclear or there are multiple shared owners.

Surface water can also pollute a river, as water flows along roads and into sewers it can pick up large levels of contaminants and take them into our rivers. This is called diffuse pollution and a major issue in the catchments in Hillingdon. More information can be found on the Water Pollution page on the Council website.

Large privately owned sites and their management of surface water networks also contribute to the flood risks across Hillingdon. For example Heathrow Airport forms a manmade catchment occupying approximately 10% of the borough. Surface water from this area is managed through a private network within the Airport and controlled mainly through a series of balancing ponds outside the Borough, in London Borough of Hounslow. This network has been overwhelmed in the past resulting in flooding into the nearby rivers.

3.3.1.2 Ordinary Watercourses flooding

These smaller watercourses which are not designated as main rivers, are also shown on ***Figure 2:*** *Map of Adjoining Lead Local Flood Authorities and watercourses*. As an outer

[17] http://maps.environment-agency.gov.uk/wiyby/wiybyController?ep=maptopics&lang=_e

London borough, with a more rural feel in parts, there are a large number of ordinary watercourses, with a combined length of approximately 125km.

Generally considered low risk systems, they can and do cause flooding on a local scale in Hillingdon. Often ordinary watercourse flooding is affected by water levels in main rivers. When river levels are high, this can in turn have an impact on sewers as outfalls cannot discharge, often causing flooding on roads.

Ordinary watercourses are so extensive that there is very little data about them. Flood risk is only mapped by the Environment Agency where it is part of a large enough catchment. The Environment Agency and Ordnance survey maps do not contain all ordinary watercourses.

Utilising local knowledge ordinary watercourses in Hillingdon have been mapped and can be seen on the Council's website on the Rivers, Ditches and Canals[18] page. This information represents the best available information, though site specific investigation should be undertaken to determine exact locations and extents.

Collecting information about their condition on a regular basis is very resource intensive.

Residents are encouraged to provide further information on the locations of ordinary watercourses, where they believe this is missing, to help ensure there is a full picture of flood risk for the Borough.

3.3.1.3 Groundwater flooding

Groundwater flooding occurs as a result of water rising up from the underlying aquifer, or from water flowing from springs. Flooding from these sources tends to occur after long periods of rainfall.

Groundwater is very complex. It is poorly understood and it is very difficult to assess the location and likelihood of groundwater flooding. The areas identified from some basic groundwater susceptibility mapping within the SWMP, generally fall along the gravel river corridors.

At a time when a number of areas in the Country such as Croydon were suffering from serious groundwater issues in 2014, there were a number of areas within Hillingdon which experienced limited groundwater flooding, particularly Kings College Playing Fields, Ruislip, where water ponded mainly in open spaces.

Due to the limited likely impact and areas affected as well as the complexities and uncertainties, it is not proposed that further expensive intrusive investigations or mapping is undertaken by the Council.

A better picture of groundwater flooding is being built through the continued recording of reports of groundwater flooding and any site investigations undertaken and the promotion of resistance and resilience measures.

3.3.2 Other flood risks

3.3.2.1 Sewer flooding

This is where the sewer network exceeds its capacity, causing flooding above ground. This can be the result of a number of factors, including an excess volume of surface water entering the both the surface and foul sewers. Blockages within the network created by silt

[18] http://www.hillingdon.gov.uk/article/28579/Rivers-ditches-and-canals

building up in the sewer, reducing its capacity, or often tree roots breaking through pipes. In addition the surface water sewers flow into rivers and if the river level is high this often prevents water on the road from draining away.

Public sewers are the responsibility of the local Water Utility Companies.

As sewers are underground, it is very difficult to tell whether flooding is a capacity issue or a local blockage unless further investigation is carried out by the Water Utility Company.

For residents, sewer flooding often manifests itself in water not flowing down the gullies in the road leading to the confusion about who is responsible.

'Missconnections' from a foul pipe into a surface water sewer can result in flooding and pollution incidents which can have potential health and environmental impacts.

Further information on who to contact and when, together with the contact details for the Water Utilities can be found on the Hillingdon Council Website on the page Road Drainage and Gullies[19].

3.3.2.2 Main river flooding

There are over 6000 properties (6%) at risk of fluvial flooding within Hillingdon.

These areas are identified on the Environment Agency website in their Flood maps for Planning (Rivers and Sea)[20] and are used to assess the risk to future development.

The National Flood Risk Assessment (Nafra) produced by the Environment Agency is used for insurance purposes. This shows that 51% of these are in areas where the likelihood of flooding is low due to protection from defences. These areas are also identified on the Environment Agency in their Flood maps for Rivers and the Sea [21] Hillingdon fluvial flooding is characterised by:

- Extensive, heavily developed floodplain with residential and industrial development built right up to the edge of river channels;
- Some rivers, such as the Yeading Brook and River Pinn, have a rapid response to rainfall. In these areas, those within flood risk zones have less than 2 hours flood warning time. Some small communities have been identified as having no appropriate warnings;
- There are a number of flood risk alleviation schemes in Hillingdon, ranging from formal defences such as embankments to features such as the formation of additional channels for holding water. These are often owned by, and should be maintained by, private landowners. The Environment Agency has permissive powers to manage flood risk from 'main rivers', the sea and reservoirs. They can also use enforcement powers to require landowners to take action to minimise flood risk to others."
- The Lower Colne river system is a complex, heavily managed river system, comprising a network of interconnecting rivers and flood control structures;

[19] http://www.hillingdon.gov.uk/article/26542/Road-drainage-and-gullies

[20] http://maps.environment-agency.gov.uk/wiyby/wiybyController?lang=_e&topic=floodmap&layer=default&ep=map&layerGroups=default&scale=2&x=357683&y=355134

[21] http://watermaps.environment-agency.gov.uk/wiyby/wiyby.aspx?topic=floodmap&scale=2&ep=map&layerGroups=default&lang=_e&y=355134&x=357683#x=357683&y=355134&scale=2

- The levels in the Grand Union Canal are managed through a series of overflows comprising control structures managed by the Canals and River Trust. Water flows from the Canal via ordinary watercourses to the River Colne. In a number of historic cases, water has flowed over the towpath and into the River;
- The River Pinn and River Crane, (in its upper reaches the Crane is referred to as the Yeading Brook, East and West Arms) are less engineered than the River Colne, though the channels have been straightened and managed in the past;
- Across the Borough, the in-channel flood control structures, such as weirs, are aging.
- Blockages are a key issue with a heavily built up flood plain and a network of roads crossing river corridors, resulting in localised issues developing quickly.
- There is an ever increasing problem of non native invasive species within the Borough, on the River Pinn, Giant Hogweed[22] has been found along large stretches, and so can conflict with the aims to improve access to areas without careful management, Floating Pennywort[23] on the River Frays and Grand Union Canal can also contribute to flooding issues where it fragments and can block debris screens. The Environment Agency has a yearly programme of clearance.

3.3.2.3 Reservoir flooding

There are a number of reservoirs within the London Borough of Hillingdon and externally which can affect Hillingdon. The areas that could be affected are identified on the Environment Agency Flood Maps for Risk of flooding from Reservoirs[24] .

3.4 Historic Flooding Events

Fluvial (main river) flooding has occurred in the London Borough of Hillingdon a number of times over the last few years. key events have included August 1977 and May 1988 in the borough, more recently in the last 15 years, events were recorded in 2000, 2001, 2003, 2007, 2009, 2013 and 2014. These events were mainly located in discrete locations across the Borough. Following these events, a number of flood defences have been put in place to manage fluvial flood risk across the Borough.

Heavy rainfall in a short period of time has caused substantial disruption to residents and businesses in the Borough. In July 2014 the A40 was closed, triggering a Flood Investigation. Again in August 2015, heavy rain over two hours caused issues for residents in the Ruislip area. Further details of the these events can be found on the Council's Website on the Flood Risk Investigations[25] page.

3.5. Future Flood Risk

Flood risk in the London Borough of Hillingdon will change as a result of the changing environment and all flood risk management measures will need to make allowance for future changes to ensure they deliver long term protection.

Climate change will be a potential cause of changes to flood risk. There are predictions of more intense storms, with the 1 in 30 year rainfall event likely to double in frequency, according to the 'Mayor's Water Strategy'.

22 https://www.rhs.org.uk/advice/profile?PID=458
23 http://www.cabi.org/projects/project/33139
24 http://watermaps.environment-agency.gov.uk/wiyby/wiyby.aspx?topic=reservoir#x=357683&y=355134&scale=2
25 http://www.hillingdon.gov.uk/article/29022/Flood-risk-investigation

Other changes which will take place include new developments and the increasing density of settlements, as well as other strategic infrastructure projects proposed in the area, which will influence the environment.

4. Roles, responsibility, functions and contact details

4.1. The London Borough of Hillingdon, as a Lead Local Flood Authority

The FWMA gives Unitary Authorities a new leadership role in local flood risk management. This LLFA role, and the responsibilities of the other Risk Management Authorities, are outlined in Figure 3 and further explained in Appendix 2.

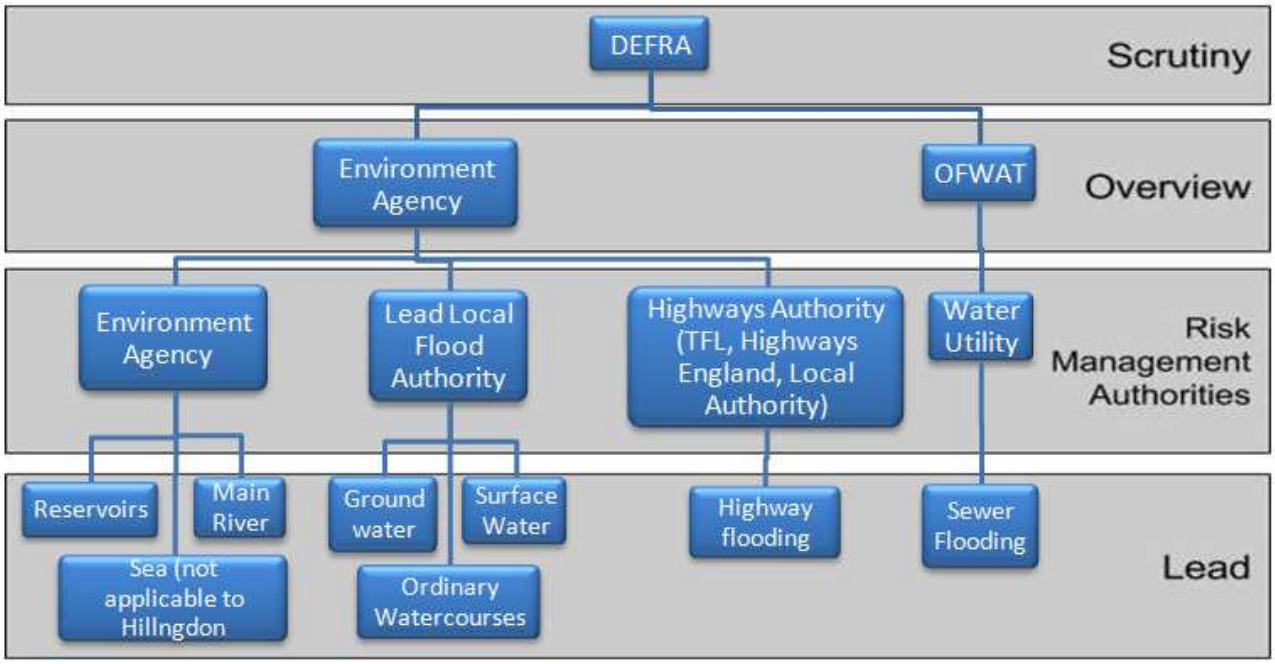

Figure 3: *Risk Management Authorities*

Local flood risk is defined as a risk of flooding arising from surface run-off, groundwater, or an ordinary watercourse. Establishing effective partnerships with stakeholders will be key to managing flood risk.

There are additional responsibilities for LLFAs in the Flood Risk Regulations, which require Flood Risk Management plans for those areas at significant risk of flooding in 2015, which includes London and therefore Hillingdon.

> Please report flooding to the Council via the report it function. It is important the Council are aware of all flooding events, however please be aware that not all issues of flooding may be the Councils responsibility to deal with. They may have to be investigated and referred to other bodies to deal with.
>
> If you need to contact the Council please use the Customer Contact Centre during office hours **01895 556000,** or in an emergency out of hours **01895250111**.

All these responsibilities must be co-ordinated with the Council's other responsibilities outlined below:

4.1.1 Category 1 Responder (Emergency Planning).

As a Category 1 responder the Council is required to:

- assess the risk of emergencies occurring and use this to inform contingency planning

- put in place emergency plans
- put in place business continuity management arrangements
- put in place arrangements to make information available to the public about civil protection matters and maintain arrangements to warn, inform and advise the public in the event of an emergency
- share information with other local responders to enhance co-ordination
- co-operate with other local responders to enhance coordination and efficiency
- provide advice and assistance to businesses and voluntary organisations about business continuity management (local authorities only).

Hillingdon as part of the Hillingdon Resilience Forum have written a Multi Agency flood plan and updated it on a number of occasions to inform and allow coordination between other local responders when dealing with flood risk.

4.1.2 Local Highway Authority.

The Local Highway Authority is responsible for all public highways in Hillingdon, apart from those managed by Highways England or TFL. Highways Authorities are risk management authorities in their own right according to the Flood and Water Management Act and must adhere to all the responsibilities of risk management authorities.

Under the Highways Act, the Highway Authority has a duty to maintain the highway, i.e. ensuring that highway drainage systems are clear and that blockages are removed, where reasonably practicable.

The Highway Authority can deliver works that they consider necessary to protect the highway from flooding. These can be on the highway or on land which has been acquired by the highway authority

The London Borough of Hillingdon Highway Service in having regard for the requirements of the flood risk management strategy undertake annual maintenance of gullies within the Borough. This is not currently provided publically as the timing and location of gully cleansing varies year on year. In a large surface water event the Council Highways service does not have the ability to respond to all reports of flooding, and will prioritise reports based on the consequence, some may have to be investigated before responding or be directed to other authorities to respond.

4.1.3 Local Planning Authority

A Local Planning Authority is responsible for the determination of planning applications. The planning functions affect flood risk management in four key ways:

- considering flooding concerns in developing local plans
- consulting the LLFA to ensure drainage has been considered appropriately in the application
- considering flood risk assessments submitted in support of applications on which the Environment Agency does not require to be consulted, ensuring that the requirements of their standing advice are applied.
- developing proactive strategies to mitigate and adapt to climate change which take full account of flood risk.

The Local Plan Part 1 Policies adopted already consider flooding issues within the Strategic Policies, further information is provided in the Local Plan Part 2 and consultation with other Risk Management Authorities was undertaken as part of the Site Allocations.

The Local Planning Authority in having regard for the requirements of the Flood and Water Management Act now consult the LLFA on all major planning applications.

As there are also a large number of minor developments these can cumulatively add to the burden on existing drainage infrastructure. Therefore in addition, the LLFA is consulted on minor development in 'Critical Drainage Areas' to ensure smaller applications in problem areas control surface water on site. This will significantly reduce flood risk from surface water where redevelopment takes place.

In recognition of the cumulative impact of small changes there has also been a change in the permitted development rights for front gardens, to ensure that front gardens remain permeable. The government have produced Guidance on the permeable surfacing of front gardens to explain the requirements. However it is not a well known requirement and requires promotion and enforcement to ensure that new driveways comply. The Hillingdon Planning Enforcement team have taken action over the non compliance of permeable front gardens.

4.1.4 Landowner and Riparian owner

As a landowner and riparian owner the Council has rights and responsibilities similar to all other 'Riparian owners'.

4.2. Other Flood Risk Management Authorities

Other bodies such as the Environment Agency, Water Companies and Highways Authorities have also been given new responsibilities to co-operate as risk management authorities. More information on these can be found in the LGA Framework for Local Flood Risk Management 2nd Edition Nov 2011[26]

4.2.1 **The Environment Agency**

The Environment Agency take the lead for managing flood risk from main rivers, reservoirs and the sea, and also have a strategic overview role for all flood and coastal erosion risk management.

They also have a key role in providing flood warnings to the public, protecting and improving the environment and promoting sustainable development.

As the lead on Main Rivers, there is normal misconception that the Environment Agency has to combat is that, as they own the watercourses. Land owners are ultimately responsible, however the Environment Agency has the power to do work to them. The Environment Agency has a river and coastal maintenance programme[27] which is available online, where you can enter a postcode to find out the work that they do nearby.

> Contact for Flood warning information and advice please call the national Floodline:
>
> Tel: **0345 988 1188** or Tel: 0845 988 1188 (24 hrs).
>
> To report incidents and issues of trees causing flooding in main rivers contact Incident Hotline Telephone: 0800 80 70 60. Please be aware the EA will assess each report on an individual basis and may not action every report.
>
> More information on this and other types of incidents the Environment Agency wish you to report to them are found on Report an Environmental Incident[28]

[26] http://www.local.gov.uk/c/document_library/get_file?uuid=ac7cd7c8-3388-4707-b4c2-10a7ab0f0940&groupId=10180

[27] https://www.gov.uk/government/publications/river-and-coastal-maintenance-programme

[28] https://www.gov.uk/report-an-environmental-incident

4.2.2 Highways England

Highways England is responsible for the drainage assets on the M4 and M4 spur into Heathrow, together with a short section of the M40, as it enters Hillingdon and crosses the Colne valley before Swakeleys Roundabout.

Further information on their responsibilities can be found on http://www.highways.gov.uk/our-road-network/environment/environmental-topics/drainage-and-water/ or for urgent issues please call **0300 123 5000**.

4.2.3 Water Utilities

Thames Water, is responsible for the provision of all foul and surface water sewerage, and some supply in Hillingdon. Further information on their future plans is provided in section 5.4.4. Water Company planning.

For information on their responsibilities and when to contact them please visit their website: http://www.thameswater.co.uk/help-and-advice/16739.htm

To report sewer issues, please call **0845 9200 800** or report it via the website: http://www.thameswater.co.uk/16266.htm

Although **Affinity Water** is not a risk management authority as it only supplies water to the majority of the north-west of the Borough it is easier to include their details as well. There have also been flooding from burst water supply pipes which have caused substantial flooding issues in the Borough such as Ruislip Woods.

For information on Affinity Water responsibilities and advice please visit their website: https://www.affinitywater.co.uk/flooding-information.aspx To report a leak please call Affinity Water **0800 376 5325** or report it via their website: https://www.affinitywater.co.uk/report-a-leak.aspx

A water company is a private company accountable to OFWAT.

4.2.4 **Transport for London (TfL)**

TfL is the local government body responsible for most aspects of the transport system in Greater London. It is responsible for the London Underground and the Strategic Highway network such as the A40, A312, and its drainage assets, such as gullies and culverts, and are also responsible where rivers cross that land, ensuring that these assets do not cause flood risk. A number of key features identified are:

Overflow channel which starts adjacent to Yeading Infants School, Carlyon Road Hayes UB4 0NR and takes high flows from the Yeading Brook, reducing the risk to the A312, and returns the flows into the Yeading Brook in Minet Country Park.

The Joel Street Ditch flows into culvert underneath the London Underground line at the rear of Hazelwood Drive, Pinner Middlesex HA5 3TT

London Underground Contact Tel: **0343 222 1234***

http://www.tfl.gov.uk/contact/4417.aspx#page-link-london-overground

4.3. Other Stakeholders

4.3.1 Heathrow

A large part of the Borough is covered by Heathrow airport, the drainage assets and arrangements of which are private and managed by Heathrow Airport Limited (formerly BAA). HAL have undertaken a SFRA and are in the process of undertaking a SWMP to inform future flood risk management within their site.

4.3.2 Ministry of Defence (MOD) - RAF Northolt

Another large part of the borough forms RAF Northolt, the drainage assets and arrangements of which are also the responsibility of the MOD.

4.3.3 Other large Landowners

Such as Brunel University and Hospital all have a responsibility to manage their own private drainage networks and comply with current standards to control surface water through sustainable methods.

4.3.4 Developers

Those developing within Hillingdon have a vital role in delivering sustainable drainage as promoted by the Flood and Water Management Act, as well as the wider planning proposals in relation to flood risk outlined in this strategy. It is crucial that future development takes proper account of all sources of flooding illustrated in the evidence base and delivers reductions in flood risks both on and off site.

4.3.5 Public

A key partner in managing flood risk, in addition to these professional bodies, is the public themselves. They have a responsibility to be aware of their own responsibilities and contribute to reducing flood risk.These are outlined in Table 3:

Actions	Council Webpage	Contents
Be aware of flooding risks	Flooding	Are you at risk of flooding?
	River Ditches and Canals	What and where are the rivers ditches and canals.
Plan the action to take to protect from flooding in an emergency	Flooding	Action you can take Evacuation
	Property drainage	Property owner responsibilities Water Utility responsibilities
Be aware of the action to take to immediately after flooding	Flooding	Recovery Insurance
Be aware who to contact for different types of flooding	Flooding	Environment Agency contact
	Road Drainage and gullies	What is a gully? Who is responsible Flooding on roads

After the event provide local information on flood events to the Council to help inform flood risk management decisions.	Flood Risk Management Email: flooding@hillingdon.gov.uk	Report flooding through the report it function, Council Contact Contact Centre, Council web pages and flooding survey or send information to or report through email address.
Take action to reduce flood risk: creating permeable driveways, checking for missconnections and reusing water. Awareness of wider environmental benefits these actions can have.	Sustainable Drainage requirements	What are Suds? SuDs information required for major applications Water sensitive design Minor development Permeable front gardens
	Water Pollution and commercial drainage National Campaign Connect Right	Surface water sewers Where does the pollution come from? Foul sewage What you can do to help
Fulfill responsibilities as 'Riparian' landowners.	River Ditches and Canals These contain links to useful government information such as 'Living on the Edge'. River Maintenance and Drainage charges.	Your responsibilities as a riparian owner. Apply for flood defence consent where appropriate when undertaking works along watercourses
Provide feedback so that action and priorities for managing flood risk reflect the priorities of the local community.	Report it Email: contactcentre1@hillingdon.gov.uk	Report others that do not comply with the above requirements to the Council through the website or email the Contact Centre
	Flood Risk Management	Provide feedback to consultations on flood risk documents.

Table 3: *Flooding information on the Hillingdon website*

It is important in providing feedback on the priorities that residents recognise the finite nature of funding and the importance of prioritising resources to ensure funding is spent on the areas where it will provide most benefit.

4.3.6 **Canal and River Trust (CRT)**

The CRT manages the Grand Union Canal, which flows through Hillingdon from north to south, and also connects with the Slough Arm. The Canal contributes to the complex nature of Hillingdon waterways and flood risks. In a number of cases it is perched above the surrounding area and the maintenance of its assets, such as embankments, is critical for managing flood risk in the Borough. Also important is how the CRT operates sluices to manage water levels which overflow from the Canal into the River Colne.

> For non-critical events you can call weekdays between 8am and 6pm, Monday to Friday on **0303 040 4040** or email. In an emergency if lives or property are at risk or there is danger of serious environmental contamination please use 24 hour emergency contact number **0800 47 999 47**. This includes serious injury or a fatality, a fire or explosion on a boat, a dangerously damaged lock, bridge or tunnel, a boat trapped in a dangerous situation e.g. on a weir or in a lock, serious flooding or a breech which risks lives or property or serious pollution.

4.3.7 **Network Rail**

Network Rail is responsible for managing Hillingdon's strategic railways. The Chiltern Line crosses Hillingdon, in some places high on an embankment and in others in a cutting, disrupting the normal drainage catchment areas. Thus can have a considerable implications for local flood risk, and an understanding of these assets will help determine how to solve these problems.

> To report non-urgent issues with fencing, structures flooding or drainage or railway equipment (eg track alarms) please their online form.
>
> In an emergency: **08457 11 41 41**

4.3.8 Neighbouring London Boroughs

In order to promote more effective cooperation across London Boroughs, the 'GLA' set up the 'Drain London'[29], project. This then set up smaller working parties across London of groups of adjacent Boroughs to meet and share best practice and create an ongoing working partnership for managing local flood risk in the area. The London Borough of Hillingdon is part of 'Group 1'. Drain London Group 1 includes the London Boroughs of: Hounslow, Hillingdon and Ealing. Group 1 has now merged with Group 2, comprising Brent, Barnet and Harrow to form the **North West London Flood Risk Management Strategic Partnership.** This group is represented on the Thames Regional Flood and Coastal Committee (RFCC) by Councillor Dean Cohen from the London Borough of Barnet. Thames Water, the Environment Agency, and other key partners referred to above, are invited to these meetings to discuss the management of flood risk strategically. The strategic partnership works together to share resources to develop and provide this information.

4.3.9 Other District and County Authorities

It is also important that there are good relationships with the neighbouring districts of South Bucks and Chiltern, which lie within Buckinghamshire County Council, and Three Rivers district council which is within Hertfordshire County Council. There is also a need for co-operation with Slough (A unitary authority and therefore LLFA) and Spelthorne

[29] The GLA developed the Drain London Project (Greater London Authority, 2007) that helps to predict and manage surface water flood risk in London. The project is a direct response to the Mayor's Regional Flood Risk Appraisal, which identified surface water flood risk as the most likely cause of flooding in London, rather than river, tidal or groundwater sources.

(district authority within Surrey County Council which is the LLFA). There is no formal mechanism for these relationships on a flood risk management basis, however there has been consultation by all parties on their Local Flood Risk Management Strategies. This should be formalised and clear contacts shared for future engagement.

4.3.10 Other local stakeholders

Local stakeholders include the key environmental groups such as the Colne Valley Partnership[30], the Colne Valley Park are instrumental within this group as well as the Colne Catchment Action Network. This is led by a steering group. The vision is that the Colne Catchment is a place where people are working together to protect and improve the water environment for everyone.

Crane Valley Partnership[31] is a collaboration between charities, community groups, borough councils, private businesses & government agencies in the five boroughs that border the River Crane (London Boroughs of Harrow, Hillingdon, Ealing, Hounslow and Richmond-upon-Thames). The Partnership aims to restore one of London's most natural rivers, conserve its surrounding habitats and improve public access so that its nearby communities can enjoy contact with the natural world.

The Hillingdon Canals Partnership is made up of a number of local groups which use the Canal. This includes representatives from Canal and River Trust, Thames 21 are also involved in a number of projects in the London Borough of Hillingdon.

[30] http://www.colnecan.org.uk/
[31] http://cranevalley.org.uk/

5. Managing local flood risk

5.1. Community Involvement

The majority of significant flooding incidents reported to the Council have been collated over the last three years. This information, and a review of the issues reported, has been important in the development of the SWMP and its Action Plan. It provided a number of additional sites to focus on that are important within the community in addition to significant areas identified by modelling and mapping work.

To engage the community further in the development of this strategy, a survey was developed to canvas the opinions of those who had been affected by flooding in the last three years. Residents were asked about their understanding as to which areas were at risk of flooding and their views on the Council's priorities.

Over 100 responses were given to the survey, and a summary of these can be found in Appendix 4. This survey will remain online on the flood risk management [32] page, in order to encourage further feedback from stakeholders on the value of the Council's flood risk information and how it could be best presented.

The consultation has shown that residents find it hard to discover the relevant information. The Flood Risk Portfolio of documents is comprised of information the Council is legally required to put together. It is complex for the community to understand and difficult for them to know how to use it to obtain the most relevant information for their area.

Providing local information on interactive maps could help this understanding. Thus, when a review of the current flood risk documentation is undertaken, maps of local flood risk, and details of flood risk assets and new projects should be provided on a community basis. This will also help all 'RMA' responding to flood events, in managing a flood event, and help residents inform where issues and events can occur.

Residents want flood risk defined at a community level. and say that there is too little information generally about the role and responsibility of bodies other than the Council in managing flood risk.

There are a number of commitments in the national strategy. It is clear from feedback from residents that they feel that the level of information provided on the maintenance regimes of some 'Risk Management Authorities' is insufficient.

5.2. Objectives developed for the local flood risk strategy

The requirements of the Flood and Water Management Act have secured significant improvements in the way that flood risk has been managed.

The Council has been implementing the utilisation of 'SuDs' in new planning developments and has been securing flood risk mitigation across all major development. This will help provide some resilience to future climate change.

The objectives outlined in Appendix 3, have been developed in line with the National Flood and Coastal Erosion Risk Management Strategy and will further address the needs of local flood risk in Hillingdon.

[32] http://www.hillingdon.gov.uk/article/24117/Flood-risk-management

5.3. Issues to overcome

5.3.1 National v Local prioritisation

There is an increasing emphasis on local prioritisation. However there are national organisations which drive much of the flood risk management delivery and their priorities may not align with the priorities of groups working on a catchment basis or those working on an even more local level.

It is clear that Hillingdon will have to work hard to promote its issues and secure funding for flood risk schemes, compared with other locations such as major town centres.

There appears to be a conflict in the responsibilities that the Environment Agency have with their strategic overview function of overseeing all flood risk management, whilst still having responsibility for leading on managing risk for main rivers.

This is particularly true where maintenance is currently prioritised with a focus on fluvial flood risk, while the emerging risks for many areas show much more complex interactions between different sources and a need for the Environment Agency to recognise this and engage with the local community to determine priorities. This has started with a recent engagement programme proposed by the Environment Agency.

A separate and independent organisation would help continue progress and coordination with flood risk bodies.

5.3.2 Information Sharing

The FWMA has promoted the sharing of information across Risk Management Authorities and given powers to ensure this occurs.

However in practice from feedback by residents other Risk Management Authorities have are not as transparent with the information they hold, to help the community understand flood risk.

When the Council has undertaken investigations into significant flood events, little support or help in determining the source of complex issues has been provided by other RMA. Further, cooperation by other 'RMA', such as Thames Water and TFL, and the more transparent sharing of information on their flood risk assets and actions proposed, or not proposed, would help community understanding of issues.

5.3.3 Separate bodies, legislation and funding streams

It must be acknowledged that each Risk Management Authority is separately funded and works within different legislative requirements. This militates against co-ordination.

In heavy rain storms there is still no single body which manages all flood risk. Local flood risk is particularly complex and, for residents, it can be difficult to know to whom they should report issues. Reports often have to be investigated before it can be determined who is responsible, and this can take time.

5.3.4 Reducing risk not preventing flooding

It is not technically or feasibly possible to prevent all flooding. Also there may be some solutions which, although achievable, may be too expensive.

The expectations of residents should be managed so that it is clear that not all reports of flooding from local sources will receive an immediate response from Risk Management Authorities. In a heavy rainstorm, there are too many reports of issues across a wide area

for quick responses to be given. The most effective management of risk is for residents to take action themselves.

The Government has set some standards of design to which Risk Management Authorities have to adhere, such as the non statutory standards for sustainable drainage[33]. However, there will always be events that will be greater than these standards were designed to protect, and the management of flows where these standards are exceeded will be very important in managing the impacts of climate change.

5.3.5 Management of large privately owned or historic sites

The London Borough of Hillingdon has a number of large privately owned large sites, where development takes place on a piecemeal basis, and thus does not deliver any long term reduction in flood risk. In these cases, a holistic approach to the management of flood risk should be undertaken, by looking at a water cycle approach for the whole site to inform future development. There is specific useful guidance on on how to take actions to protect properties, including conservation of historic fabric from Historic England 'Flooding and Historic Buildings[34]'.

5.3.6 Costs of flooding

It is difficult to quantify the full costs of flood management. These can include the whole life costs of maintaining flood defences.

However the costs of flooding can include both direct and indirect impacts, such as the closure of infrastructure, and the required responses by emergency services dealing with flooding incidents.

5.4. Funding approach

5.4.1 DEFRA Grant

The Council is funded for flood risk management through a grant system from DEFRA for Lead Local Flood Authorities detailed in Table 4.

DEFRA grant	**Allocated**			**Proposed**	
	2013/14	2014/15	2015/16	2016/17	2017/18
Settlement Funding Assessment	£127,000	£125,000	£124,000	£126,574	£128,938
SuDs Added Burden				£14,069	£13,611

***Table 4** DEFRA funding grants*

The Settlement Funding Assessment has reduced over time and further funding cuts were expected until recent flooding events of Winter 2015/2016 occurred.

[33] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/415773/sustainable-drainage-technical-standards.pdf

[34] https://historicengland.org.uk/images-books/publications/flooding-and-historic-buildings-2ednrev/

The funding the Council receives is currently spent on officer resource, in order to equip the Council for meeting its legislative requirements, and developing flood risk reduction projects for potential external funding.

A risk based approach will have to be taken to target resources on areas where they will have the greatest effect.

5.4.2 Flood defence grant in aid

Flood defences and coastal erosion risk management schemes are funded from a government grant called Flood Defence Grant in Aid (grant in aid) which is administered by the Environment Agency on behalf of Defra.

The funding approach determines what proportion of the cost of a scheme can be funded by grant in aid. Some schemes will be fully funded, others only partly funded, according to how much public benefit they will give, for example by reducing flood risk to homes and vital infrastructure, (e.g. power stations and water treatment works). Any shortfall in the amount of grant in aid required to construct the scheme will need to be found from elsewhere. This could be from funding from the local levy, from local businesses or other parties who will benefit from the scheme.

5.4.3 The local levy

Administered by the Thames Regional Flood and Coastal Committee (RFCC)[35], The London Borough of Hillingdon currently makes a contribution of £**209,382** annually to the Thames region local levy.

The local levy can be distributed to flood defence schemes at the discretion of the TRFCC. It is often used to fund locally important schemes which would otherwise not receive funding or to provide partnership contributions for grant in aid funding.

5.4.4 Water company planning

Water company investment in their infrastructure has to be agreed by the water company regulator, Ofwat. This is done on a five-year cycle called an Asset Management Plan (AMP). AMP6 began on 1st April 2015 and will run until the 31st March 2020.

The London Borough of Hillingdon does not have a responsibility to oversee the management of water company assets or the performance of sewerage undertakers.

Similarly sewerage undertakers only have a duty to manage their assets and ensure they perform to the appropriate criteria. They do not have a duty to manage or prevent other flooding.

However, there are clearly common areas of concern for many risk management authorities and sewerage undertakers where a joint approach may be mutually beneficial.

5.5. Flood Risk Management Projects

5.5.1 Non Structural or Hillingdon wide measures

The majority of the Council's objectives are strategic and non structural and involve the improvement of land use management practices, informed by improved data collection. Improved records' management can be undertaken, supported by changes in computer infrastructure, with minimal costs to the Council as long as funding continues to be utilised

[35] https://www.gov.uk/government/groups/thames-regional-flood-and-coastal-committee

for officer resources. For example, reported significant flood risk events will be added to the SWMP Action Plan and work will be prioritised, based on that evidence.

Funding for the additional burdens on Local Authorities as Lead Local Flood Authorities, has been used to employ a Flood and Water Management Officer (FWMO). In order to undertake the additional work required to ensure that surface water flooding is a material consideration in planning decisions, the Council has also recruited a temporary Drainage officer.

To help provide the community with useful information on flood risk in a more accessible form, the London Borough of Hillingdon has continued to update its website with key information. This is summarised in Table 3 on page 25. Further updates are planned and are a key part of the objectives for this strategy to help allow communities to make decisions on residual risk.

5.5.2 Site Specific Projects

The Council currently has identified a number of schemes from 'SWMP Actions' to investigate opportunities for reducing flood risk. The Council has applied to the Regional Flood and Coastal Committee for funding. The full Programme of flood and coastal erosion risk management schemes[36] can be found the government website. A list of the projects within Hillingdon on the 6 year programme, and are set out in Table 5. These are projects are led by either the Environment Agency or the London Borough of Hillingdon in close cooperation.

Project	Status
Ladygate Lane Trash Screen	Delivered
Kendal Close	Initial Investigation
The Common	Initial Investigation
Cranford Park	To start 2021
River Pinn	Modelling work undertaken
Cannons Brook	Modelling work undertaken
Longford Flood Alleviation Scheme	No funding allocated yet
Huntsmoor Weir Site Access track	No funding allocated yet
Yeading Brook West Flood Storage Area Decommissioning	No funding allocated yet

***Table 5** Projects within Hillingdon on the RFCC programme*

Officer resources have been committed by the Council to develop these projects.

As more significant flooding issues are recorded and potential schemes identified, funding for pre-feasibility studies will be required. Funding from the Environment Agency has been

[36] https://www.gov.uk/government/publications/programme-of-flood-and-coastal-erosion-risk-management-schemes

curtailed from the full to partial funding of flood risk projects. Community involvement and match funding from the Council, other flood risk authorities or the public will be crucial to the long term development and delivery of any schemes arising from any initial investigation and study.

The Council will also continue to explore these and other further funding streams, both national and local, as outlined in Table 6.

National	Regional / Local
• European • Highways England • Heritage Lottery Fund • Tesco Community Projects • DEFRA grants	• RFCC: Local Levy and Grant in Aid • Greater London Authority • Drain London • Thames Water • Heathrow Communities • LB Hillingdon Chrysalis • S106 and CIL • Property owners

Table 6: *Funding streams*

5.7. Review of document against National Strategy objectives

The National Strategy has an objective to encourage more effective risk management by enabling people, communities, businesses, infrastructure operators and the public sector to work together. The specific requirements are outlined in Table 7.

National Flood Risk Management Strategy Aims	Delivery
Provide a clear understanding of the risks of flooding and erosion, nationally and locally, so that investment in risk management can be prioritised more effectively	Objective 1 and 5 for flood investigations and provision of more information publically
Set out clear plans for flood risk management, so communities and business can make informed decisions about management of residual risk.	Objective 1
Encourage innovative management of flood and coastal erosion risks, taking into account the needs of communities, businesses and the environment	Objective 1
Form the links between the Local Flood Risk Management Strategy and local spatial planning.	Objective 3
Help communities to recover more quickly and effectively after incidents.	Objective 1 and 4
Ensure that emergency plans and responses to flood incidents are effective and that communities are able to respond properly to flood warnings.	Objective 1

Table 7: *National Flood Risk Management Strategy aims*

6. Sustainability

6.1. Strategic Environmental Assessment (SEA)

To ensure that the strategy contributes to the achievement of wider environmental objectives, it is important that it meets the requirement of the Strategic Environmental Assessment (SEA) directive and the Water Framework Directive.

The objective of the SEA is 'to provide for a high level of protection of the environment and to contribute to the integration of environmental consideration into the preparation and adoption of plans and programmes with a view to promoting sustainable development.

It was transposed into English legislation by the Environmental Assessment of Plans and Programmes Regulations 2004 (the 'SEA Regulation').

The scoping report and initial testing of the objectives for the Strategy against the SEA objectives has found that no SEA is required.

Although there is no requirement for a SEA, there is a requirement to undertake flood risk works in a manner consistent with the National Flood Risk Management Strategy, and the six guiding principles – Community focus, catchment approach, sustainability, proportionate risk based approaches, multiple benefits and varieties of beneficiaries. Therefore a decision was taken to undertake a review of the LFRMS as part of the screening for SEA to assess the Strategy against these and other environmental considerations.

6.2. Habitats Regulations Assessment (HRA)

The EU Habitats Directive was adopted in 1992 and aims to protect habitats and species of European Significance. It was transposed into UK law in The Conservation of Habitats and Species Regulations 2010:

> *"Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives".*

A Habitats regulation scoping has been undertaken which has determined there is no requirement for a Habitats Regulation Assessment.

6.3. Environmental impact conclusions

There is no significantly adverse effect identified which requires further assessments at this current stage, as the key objectives of the LFRMS are high level. However it is expected that the Flood Risk Management Strategy and documents within the London Borough of Hillingdon's Flood Risk Management Portfolio, will be updated and specific flood risk management schemes developed.

Site specific flood risk projects may require an Environmental Impact Assessment (EIA). All future flood risk schemes should have regard to the environmental issues facing Hillingdon, as identified in the SEA screening. There are opportunities for flood risk schemes to contribute to the wider environmental and sustainable aims and objectives identified as priorities for the London Borough of Hillingdon, as well as for other schemes to help reduce flooding.

7. Monitoring and review

7.1. Monitoring

It is in the interests of the Council and residents that the LFRMS remains up-to-date. It will be monitored and, where appropriate, updated.

There may be circumstances which may trigger a review and/or an update of the evidence base in the interim, such as:

- Additional data or modelling becoming available, which may alter the understanding of risk within the Borough;
- Additional (major) development or other changes in the catchment which may affect the flood risk.
- Updates within key supporting documents within the Flood Risk Management Portfolio

The evidence base, with actions and priorities, will be continually reassessed as more information on flooding is collected and as actions are progressed and investigated. The Surface Water Management Action Plan is a living document and will be updated regularly for internal use. Periodically the version published on the Council website will be updated.

7.2. Updating the FRMS

The Local Flood Risk Management Strategy is likely to follow a six year cycle following the proposed six yearly review of the National Flood Risk Management Strategy and Flood Risk Regulations requirement for Flood Risk Management Plans.

In recognition that the FRMS will be updated in the future, each document should be given version number and date so it is clear which is the most recent. Any amendment should trigger the reissue to departments within the Council and to other stakeholders, as well as to the website.

8. Glossary

AMP	Water Utilities Asset Management Plans
AQMA	Air Quality Management Area
The Council	London Borough of Hillingdon
CCA	Civil Contingencies Act 2004 gives a duty to plan for emergencies to Category 1 responders, which the London Borough of Hillingdon is defined as.
CDA	Critical Drainage Areas identified in the SWMP as areas that contribute to and have critical drainage problems.
CFMP	Catchment Flood Management Plan considers all types of inland flooding, from rivers, groundwater, surface water and tidal flooding.
CRT	Canal and River Trust is responsible for the assets on the grand union canal which runs through Hillingdon. For non-critical events Tel **0303 040 4040**. Weekdays 8am to 6pm. In an emergency Tel **0800 47 999 47**.
EA	The Environment Agency is a national executive non-departmental public body, sponsored by DEFRA to protect and improve the environment. Responsible for: ● regulating major industry and waste ● treatment of contaminated land ● water quality and resources ● fisheries ● inland river, estuary and harbour navigations ● conservation and ecology ● managing the risk of flooding from main rivers, reservoirs, estuaries and the sea. They provide the following services: Flood maps for rivers and surface water flooding. **Flood Warning Service Tel 0345 988 1188** (24 hour service) The Environment Agency offer a free service that provides flood warnings by phone, text or email, Floodline Warnings Direct. **Environment Agency Incident Hotline Tel 0800 80 70 60** (Freephone, 24 hour service). More information on the type of environmental issues the Environment Agency deal with can be found on their website. Water levels at monitoring stations. Type your postcode in local flood information.
EIA	Environmental Impact Assessment assess the significant environmental impact of a project which requires planning permission
Floating Pennywort	An invasive aquatic plant further information on this can be found on the CABI website including details of its management
Flood Map	Produced by the Environment Agency, shows flooding from rivers, areas likely to be at risk from surface water flooding, and other key environmental information.
FRMP	Flood Risk Management Plan what they are and who is responsible for them can be found on the government website.
FRM Portfolio	Flood Risk Management Portfolio, group of flood risk management documents produced by the London Borough of Hillingdon, includes the Hillingdon PFRA, SFRA, SWMP Evidence Base and Options and Action Plan and Flood Investigations.
FRR	Flood Risk Regulations
FWMA	Flood and Water Management Act 2010
FWMO	Flood and Water Management Officer

Giant Hogweed	A non native invasive species which is harmful (the sap can cause severe skin burns) more information can be found on the RHS website
GLA	Greater London Authority, prepares the London Plan
Grant in Aid	A grant provided to the EA for flood alleviation schemes
Gullies	Roadside grills to allow water to drain off the road. responsibility of the Highways Authority.
HRA	Habitats Regulations Assessment
LFRMS	Local Flood Risk Management Strategy. The Flood and Water Management Act requires a strategy to be produced by Lead Local Flood Authorities on the management of local flood risk.
LLFA	Lead Local Flood Authority, defined by the Flood and Water Management Act which gives unitary or County councils responsibilities in managing local flood risk, asset registers, and investigating significant flood events.
Local flood risk	Surface water, groundwater and ordinary watercourses
Local Levy	Funding provided to the RFCC from LLFA
LRF	Local Resilience Forum, made up of Category 1 responders
London Plan	Produced by the Mayor, the strategic plan for London, setting out a plan for economic, environmental, transport and social framework for London includes supplementary planning guidance such as the Sustainable Design and Construction SPG, All London Green Grid, Mayor's Water Strategy
MAFP	Multi Agency Flood Plan. The Civil Contingencies Act (2004) requires Category One Responders to have plans in place to respond to all emergencies. So the Hillingdon Local Resilience Forum has determined the complex and diverse nature of flooding and the consequences that arise, requiring a comprehensive and often sustained response from a wide range of organisations required a specific Hillingdon MAFP.
Misconnections	Wrongly connected pipe work from kitchens into the surface water sewer
NFEF	National Flood Emergency Framework to provide a forward looking policy framework for flood emergency planning and response.
NFRMS	National Flood Risk Management Strategy A requirement of the FWMA to be produced by the Environment Agency
NAFRA	National Flood Risk Assessment
OFWAT	The Water Regulator for England and Wales
Pitt review	Government Commissioned report to learn the lessons from the 2007 floods
PFRA	Preliminary Flood Risk Assessment
RBMP	River Basin Management Plans
RMA	Risk Management Authorities, defined by the Flood and Water Management Act and includes the Environment Agency, Lead Local Flood Authorities, Highway Authorities, Water and Sewerage Companies
Sewer	Usually a underground pipe conveying foul sewage or surface water. In some instances this is combined. The responsibility of the Water Utility.
SEA	Strategic Environmental Assessment
SFA	Settlement Funding Assessment grant from DEFRA
SFRA	Strategic Flood Risk Assessment, collates all available flood risk information to inform planning decisions within the Local Plan
Spatial Planning	The management of space and development in order to create better places.
SuDs	Sustainable Drainage and the non statutory national standards.

SWMP	A Surface Water Management Plan outlines the preferred strategy for managing surface water flooding, which describes flooding from sewers, drains, groundwater, and runoff from land, small (ordinary) water courses and ditches that occurs as a result of heavy rainfall
TFL	Transport for London
TRFCC	Thames Regional Flood and Coastal Committee
Water Utility	**Thames Water** If you are aware it is the surface water sewer that is blocked: Report sewer issue to Thames Water » Or call Thames Water on 0800 0093964 - please select option 2 **Affinity** supply water to the north of the borough
WFD	Water Framework Directive introduced by the Eu to provide an integrated and comprehensive way of managing the water environment

Appendix 1 European and National Policy and Legislation

European

The EU Floods Directive[1]. As a result of severe flooding in continental Europe, European legislation was published in November 2007. It is designed to help member states prevent and limit the impact of floods on people, property and the environment.

Water Framework Directive (WFD) 2000/60/EC[2]. This is a European Community Directive, designed to integrate the way water bodies are managed across Europe. It aims to Improve the ecological quality of water bodies and conserve habitats and species which are dependant on water.

Strategic Environmental Assessment (SEA) Directive 2001[3]. This legislation aims to increase the consideration of environmental issues during decision making related to strategic documents such as plans, programmes or strategies. The SEA identifies the significant environmental effects likely to result due to the implementation of a plan, programme or strategy.

The Habitats Directive 1992[4]. This legislation was transposed into UK legislation and then consolidated under the Conservation of Habitats and Species Regulations 2010. It requires the maintenance and protection of certain habitats and the consideration of the impact of plans on those designated sites.

National

The Flood Risk Regulations (FRR) 2009[5] transposed the Floods Directive into English law. It requires the production of Preliminary Flood Risk Assessments (PFRA), which identify areas of potentially significant risk. The first of these was to be delivered by 2011, afterwards on a continual six year cycle. Following this, those Local Lead Flood Authorities (LLFAs) identified as being in flood risk areas are required to produce Flood Hazard and Risk Maps by June 2013, (these were produced by the Environment Agency) and Flood Risk Management plans, identifying how flood risks are to be mitigated by December 2015.

Flood and Water Management Act 2010[6]. This clarifies the legislative framework for managing flood risk across England. There is no one body responsible for flood risk. The FWMA created a general responsibility for Lead Local Flood Authorities, (Unitary or County

[1] http://ec.europa.eu/environment/water/flood_risk/
[2] http://ec.europa.eu/environment/water/water-framework/index_en.html
[3] http://ec.europa.eu/environment/eia/sea-legalcontext.htm
[4] http://ec.europa.eu/environment/nature/legislation/habitatsdirective/index_en.htm
[5] http://www.legislation.gov.uk/uksi/2009/3042/contents/made
[6] http://www.legislation.gov.uk/ukpga/2010/29/contents

Councils) to take leadership for the coordination and management of local flood risk. Local flood risk includes surface runoff, groundwater and ordinary watercourses (including lakes and ponds). A number of duties, powers and tools have been created or developed to allow local flood management to be more effective. Specific responsibilities are given to the various risk management bodies.

National Flood and Coastal Erosion Risk Management Strategy for England 2011[7]. This sets out the Environment Agency's overview role in flood and coastal erosion risk management, encouraging more effective partnership working between national and local agencies and local communities.

National Planning Policy Framework 2012[8] streamlined existing planning policy and reduced the amount of planning guidance, whilst retaining the principles of reducing development in flood risk areas. it sets out the guidance for those taking decisions and sets out a definition of 'sustainable development'

> *Pursuing sustainable development involves seeking positive improvements in the quality of the built, natural and historic environment, as well as in people's quality of life, including (but not limited to):*
> ● *making it easier for jobs to be created in cities, towns and villages;*
> ● *moving from a net loss of bio-diversity to achieving net gains for nature;*
> ● *replacing poor design with better design;*
> ● *improving the conditions in which people live, work, travel and take leisure; and*
> ● *widening the choice of high quality homes.*
>
> *Plans and decisions need to take local circumstances into account, so that they respond to the different opportunities for achieving sustainable development in different areas*

Planning Practice Guidance[9], released in 2014, provides specific technical advice on how to take flooding into account in the planning process.

For windfall developments this includes ensuring that the sequential test for specific development proposals is applied by the Applicant with guidance from the local authority (new development should be steered to sites in Flood Zone 1 as a priority). Please note in Hillingdon there are large areas of Flood Zone 1 within Urban areas and small infill developments of a few houses are unlikely to pass the sequential test.

Where the sequential test is passed, whether the exceptions test should be applied. For this it must be demonstrated that the development can manage the flood risk to and from the site appropriately, as well as providing wider sustainability benefits.

[7] https://www.gov.uk/government/publications/national-flood-and-coastal-erosion-risk-management-strategy-for-england
[8] https://www.gov.uk/government/publications/national-planning-policy-framework--2
[9] http://planningguidance.planningportal.gov.uk/blog/guidance/flood-risk-and-coastal-change/

Environment Agency Standing Advice[10] It is expected by Hillingdon that the Environment Agency Flood Risk Standing Advice will be applied with applications for development. Specifically householders should ensure that in undertaking minor extensions[11] provide sufficient information to show compliance with these requirements as part of the application. Please note that where you lie in the functional floodplain a minor extension can can result in an increased flood risk and . If your minor extension is in an area with increased flood risk as a result of multiple minor extensions in the area, you need to include an assessment of the off-site flood risk.

The Land Drainage Act 1991[12], as amended by the Flood and Water Management Act, gives LLFAs responsibility for consenting works on Ordinary Watercourses.

General Permitted Development Procedure[13]. From 1st October 2008 the hard surfacing of more than five square metres of domestic front gardens is permitted development only where the surface in question is rendered permeable. Further information on how to comply with this requirement can be found in a DEFRA and Environment Agency publication 'Guidance on the permeable surfacing of front gardens'[14].

The Environment Agency has recently released new Climate Change allowances for Flood Risk Assessment. This advice updates previous climate change allowances to support NPPF. The climate change allowances are predictions of anticipated change for:

- peak river flow by river basin district
- peak rainfall intensity

Hillingdon fall in the Thames River Basin therefore the following Peak River Flow Allowances apply and should be taken into account by proposals for development within the Borough.

River basin district	Allowance category	A Total potential change anticipated for '2020s' (2015 to 39)	B Total potential change anticipated for '2050s' (2040 to 2069)	C Total potential change anticipated for '2080s' (2070 to 2115)
Thames	Upper end	25%	35%	70%
	Higher central	15%	25%	35%
	Central	10%	15%	25%

[10] https://www.gov.uk/guidance/flood-risk-assessment-standing-advice
[11] https://www.gov.uk/guidance/flood-risk-assessment-standing-advice#minor-extensions-standing-advice
[12] http://www.legislation.gov.uk/ukpga/1991/59/contents
[13] http://www.legislation.gov.uk/uksi/2015/596/schedule/2/made
[14] https://www.gov.uk/government/publications/permeable-surfacing-of-front-gardens-guidance

This guidance also details the modelling approach that should be adopted according the flood zone and vulnerability taking into account the lifetime of the development as indicated by the potential changes anticipated above.

As an example Housing falls in the More vulnerable category and lifetime of 80 plus years Column C therefore the category of Higher Central should be used as an allowance for the assessment. As a minimum an intermediate approach of interpolating a flood level

There are also anticipated changes in extreme rainfall intensity in small and urban catchments. Food risk assessments and strategic flood risk assessments, should assess both the central and upper end allowances to understand the range of impact. Table 2 of the guidance is replicated below:

Applies across all of England	Total potential change anticipated for 2010 to 2039	Total potential change anticipated for 2040 to 2059	Total potential change anticipated for 2060 to 2115
Upper end	10%	20%	40%
Central	5%	10%	20%

The Non Statutory technical standards for sustainable drainage[15]. It is expected that development in Hillingdon will adhere to this guidance, and provide evidence to ensure it meets the overall aims and objectives of the Local Flood Risk Management Strategy. However please note in parts this is superseded by more local requirements detailed elsewhere in the Flood Risk Management Portfolio.

Other useful guidance documents and useful links:-

- The Climate Change Act (2008)[16]
- The Civil Contingencies Act (2004)[17]

[15] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/415773/sustainable-drainage-technical-standards.pdf
[16] https://www.theccc.org.uk/tackling-climate-change/the-legal-landscape/global-action-on-climate-change/
[17] http://www.legislation.gov.uk/ukpga/2004/36/contents

Appendix 2 Roles and Responsibilities of Risk Management Authorities

FWMA Responsibility	Risk Management Authority	Explanation	Action
Prepare a Local Strategy for Flood Risk Management	**LLFA**	**LLFAs are required to develop, maintain, apply and monitor a local strategy** for flood risk management in its area. The local strategy will build upon information such as national risk assessments and will use consistent risk based approaches across different local authority areas and catchments.	This document fulfils this requirement
Strategic Leadership of local flood risk management authorities	**LLFA**	It is recommended this is done through the formation of a local flood partnership between risk management authorities.	Meeting of the North West London Flood Risk Partnership every quarter.
Preparation of an Asset Register	**LLFA**	Lead Local Flood Authorities (LLFAs) have a **duty to maintain a register of structures** or features which are considered to have an effect on flood risk, including details on ownership and condition as a minimum. The register **must be available for inspection** and the Secretary of State will be able to regulate the content of the register and records.	London Borough of Hillingdon has a record of all significant structures which may affect flood risk.
Powers to request information	**LLFA, EA**	Powers to request a person for any information relating to their flood management responsibilities	Will utilise this power, when necessary.
LLFAs have a duty to co-ordinate the investigation and recording of 'significant' flood events	**LLFA**	This **duty** includes identifying which authorities have flood risk management functions, and what they have done or intend to do with respect to an incident, notifying risk management authorities where necessary and publishing the results of any investigations carried out.	Hillingdon have undertaken, and published, two flood investigations.

Duty to contribute to sustainable development	**LLFA**	Advice on land use planning processes to mitigate flood risk resulting from new development, or redevelopment, of land	The FWMO provides input into the strategic planning process to advise on issues of flood risk.
Power to designate flood risk management structures[1]	**LLFA, EA**	LLFAs, as well other flood management authorities, have **powers to designate structures** and features that affect flooding or coastal erosion in order to safeguard assets that are relied upon for flood or coastal erosion risk management. Investigation of flood incidents to be undertaken.	No structures have yet been designated, but a number are being considered.
SuDs Approval Body**	**LLFA**	LLFAs have a **duty to establish a SuDs Approving Body (SAB)** to approve, adopt and maintain any new sustainable drainage systems (SuDs) within their area. NOT Implemented. LLFA to comment on the surface water flood risk for major planning applications.	The Council is undertaking this role and also commenting on minor development in Critical Drainage Areas
Works powers to do works for surface water and groundwater	**LLFA**	LLFAs have **powers to undertake works** to manage flood risk from surface runoff and groundwater, consistent with the local flood risk management strategy for the area.	Hillingdon will utilise this power, when necessary.
Ordinary Watercourse Consenting	**LLFA**	If riparian owners wish to culvert an ordinary watercourse or insert any obstructions, consent is required from the LLFA.	A Consenting process has been developed for consenting. Contact the Flood and Water Management

[1] http://www.defra.gov.uk/publications/files/pb13804-fcerm-infonote.pdf

			Officer for further details.
Consistency with the National Strategy	**LLFA**	A duty to do all the above in a manner consistent with the National Strategy, which has 6 guiding principles – Community focus, catchment approach, sustainability, proportionate risk based approaches, multiple benefits and varieties of beneficiaries.	The LFRMS drafted includes these 6 guiding principles to ensure that it is consistent with them.
Development of a National Strategy	**EA**	To provide the overarching framework for future action by all risk management authorities to tackle flooding and coastal erosion in England.	Completed by the EA
Regional Flood and Coastal Committees	**EA**	Brings together members appointed by Lead Local Flood Authorities (LLFAs) and independent members ● to ensure there are coherent plans for identifying, communicating and managing flood and coastal erosion risks across catchments ● to encourage efficient, targeted and risk-based investment in flood and coastal erosion risk management that represents value for money and benefits local communities ● to provide a link between risk management authorities, and other relevant bodies to build understanding of flood and coastal erosion risks in its area	See Thames RFCC[2]
Adoption of Private Sewers	**Water companies**	Only drains serving one property and located within that property's curtilage will be exempt from the new legislation.	See Thames Water Website[3]
Duty to cooperate with other RMA	**LLFA, HA, EA Water companies**	The FWMA places a duty on all Risk Management Authorities to cooperate.	See Government guidance note[4]

[2] https://www.gov.uk/government/groups/thames-regional-flood-and-coastal-committee
[3] https://www.thameswater.co.uk/developers/15366.htm
[4] https://www.gov.uk/guidance/flood-risk-management-information-for-flood-risk-management-authorities-asset-owners-and-local-authorities

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Appendix 3 Local Flood Risk Management Strategy Objectives and Measures

	Objectives	Measures	Driver	Actions	Timescale	Cost	Funding
1	Develop knowledge and awareness of different flood risks, and roles and responsibilities in managing flooding.	1. Increase the information available to the public on risk management authorities and other bodies' roles and responsibilities.	FWMA	Information to be contained within the Strategy about the roles and responsibilities. The Flood Risk Management Portfolio of documents is available on the Hillingdon website.	Short	Officer Resources	Defra flood risk grant to Council utilised in funding internal officer resources
			Community	Information contained on the Council website about roles and responsibilities.			
		2. Develop community awareness of the risks of flooding.	Community	Provide clearer information on the risks of flooding on a community basis.	Short	Officer Resources	Defra flood risk grant utilised in funding internal officer resources
				Provide clearer information to the public about what the Council will and won't be able to do in a flood event, such as the provision of sandbags.			
				Provide information on the existing protection provided by Flood alleviation measures.			
2	Maintain and improve communication and cooperative working between RMA and LLFA and the public.	1. Comply with the terms of reference for the North West London Flood Risk Strategic Partnership arrangements.	FWMA	Continue to be an active participant within the NWLFRP and recognise that there are other LLFA outside this group, which Hillingdon also need to engage with. The partnership (established as part of the SWMP document develop to deliver long term partnership working across London) enables an understanding of flood risk across the region, an opportunity to discuss proposed actions, opportunities for operational efficiency, and solving cross boundary issues and the sharing of best practice management procedures and legislative changes.	Ongoing	Officer Resources	Defra flood risk grant utilised in funding internal officer resources

		2. The Council through its Flood Risk Strategy must promote a sustainable approach to flood risk management (balancing Social, Economic and Environmental Needs).	FWMA/ WFD and RBMP	To continue working with environmental and social groups such as the Colne and Crane Catchment partnerships, and the Canals Partnership. The partnerships enable the identification of projects which have mutually beneficial outcomes and ensure that plans for flood risk reduction do not compromise aims to improve the environment, as set out in the Water Framework Directive, the Thames River Basin Management Plan and the Catchment Plans for the Colne and Crane.	Ongoing	Officer Resources	Defra flood risk grant utilised in funding internal officer resources
				Identify and map further opportunities for flood risk improvements such as deculverting, which will provide multiple benefits, and encourage the increased value of these assets to the community.			
				Crane Valley Partnership aims to *'understand the distribution of non-native species and control them'* have mutual benefits in reducing potential likely blockages from plants such as floating pennywort.			
				Where the implementation of SuDs is required to reduce the rapid response of our rivers from surface water run off to also ensure these provide water quality improvements to reduce rubbish and diffuse pollution collected from roads and drives entering our rivers rom causing additional blockages.			
			Community	To provide more information to the community about planned projects so that residents are engaged in any future flood risk management plans.			

			Public Health	Flooding can have an impact on public health. To work with services which are now required to deliver "Better Environment Better Health" See GLA Website for opportunities to encourage a higher value to be placed on the waterways within Hillingdon through improved access and opportunities linked with health. Promote the need to manage foul water from houses and ensure the number of missconnections are reduced			
3	Development in Hillingdon understands and takes account of flood risk issues and plans to reduce flood risk.	1. Influence the local plan and creation of suitable policies on flood risk.	FWMA	Review policies in the Local Plan Part 2 to ensure they meet current legislative requirements, and the aims of the NPPF in seeking positive improvements in the quality of the built, natural and historic environment, as well as in people's quality of life.	Completed	Officer Resources	DEFRA Added burden grant for SuDs
		2. Secure contribution to flood risk reduction from new developments.	Local Strategy	Identify key opportunities for flood alleviation schemes.	Ongoing	Officer Resources	
		3 Major landowners to develop site wide long term plans for managing water.	Local Strategy	Major landowners, such as Heathrow, are required to develop long term flood risk management plans. These should include long term monitoring to understand the risks, and plan for a full understanding of the impact of the development on the water cycle. In this way, they can inform piecemeal redevelopment so it can contribute to reducing flood risk and impacts on the environment.	Ongoing	Landowner Resources	
		4. Continue influencing developments through the planning process to ensure they meet	FWMA	Ensure Council led projects consider flood risk reduction through consideration of implementation of sustainable drainage.	Ongoing	Officer Resources	

		the requirements of National Standards for Sustainable Drainage and London Plan requirements.	FWMA	Highways Authority as a risk management authority to have regard for the flood risk strategy.			
			FWMA / SWMP	Continue with statutory requirements and also prioritising minor developments in critical drainage areas.			
4	Identify and implement new flood risk management measures.	1. For significant issues, continue to identify, prioritise and secure funding for flood risk management schemes in accordance with the process set out in the SWMP Part 2 Action Plan.	Community	Review SWMP Action Plan to update with more recent information on areas at risk and areas that have flooded	Ongoing	Officer Resources to develop schemes to apply for funding	Defra flood risk grant utilised in funding internal officer resources/ various external and internal funding streams
				Create maps of where Risk Management Authorities are undertaking works to alleviate flooding.			
			SWMP Tier 2 Project	Review significant areas, such as 'Critical Drainage Areas', so that the whole area contributing to flood risk is highlighted for action.			
5	Promote the effective management of flood risk assets.	1. Continue to update the Asset Record and Register for the Council, informed by investigations.	Community	Increase the information available to residents about existing flood assets, who is responsible for them, and, if possible, how they are maintained. This can feed into emergency action plans and allow residents to respond to insurance queries to reduce their premiums.	Ongoing	Officer Resources	ICT/ Defra flood risk grant utilised in funding internal officer resources
		2.Designate Flood Risk Assets where appropriate.	FWMA	Develop a clear process for defining the assets which may need to be designated and a process for doing this, to ensure the appropriate management of those assets.	Long	ICT changes and Officer Resources	
		3. Consent works to Ordinary watercourses to	FWMA	Procedure developed based on EA consenting regime. Need to integrate this within the current IT programmes utilised by Council Services for business continuity purposes.	Ongoing		

		secure appropriate flow of those watercourses.					
		4. Build a complete understanding of flood risk assets across the Council services.	FWMA	Systems for asset management recording to include ability to hold flood risk information.	Medium	ICT	ICT
				Lifetime costs of assets are understood and can be taken into account within any management plan.	Medium	Property	ICT
				Investigate the value of existing flood defences and review their long term maintenance costs against benefits. A number of assets are quite old, and will come to the end of their life soon. Their benefit will have to be considered carefully against the long term costs of maintenance.	Ongoing	Officer Resources	Defra flood risk grant utilised in funding internal officer resources
				Understand all flood risk assets across various departments, ensuring land registry parcels of council ownership are redefined to make this clearer to Council services	Long	Officer Resources	
		5. To continue to promote the rights and responsibilities of 'Riparian Owners'. For more information see 'Living on the Edge'	Community	With the EA, identify landowners and advice directly of the need to carry out their flood risk responsibilities, in addition advise of other environmental issues to be aware of such as the need to manage invasive species.	Ongoing	Officer Resources	
6	Ensuring that emergency plans and responses to flood incidents	1. For flood events larger than those that can be managed through defences, plan for eventualities	CCA/ FWMA	LB Hillingdon is part of the Hillingdon Resilience Forum together with the London Fire Brigade and other key services. Ensure that the Multi Agency Flood Plan is fit for purpose.	MAFP 2014 completed	Officer Resources	Defra flood risk grant utilised in funding internal

	are effective and that communities understand their role in an emergency.	that cannot be mitigated. Do this through appropriate emergency plans and responses.	Community	Many of the local flood risk issues are dealt with by a variety of different departments. London Borough of Hillingdon should also develop its own internal Flood Plan to coordinate different services.	Flood Plan being drafted		officer resources
			SWMP	Promote actions to be taken by residents to reduce flood risk, in the SWMP Part 2 Action Plan Appendix B	Ongoing		
			Strategy	Clearer and more transparent plans produced by all risk management authorities as to what they will and won't be able to do in a flood event	Long term objective		
		2. Undertake appropriate Flood Investigations following significant flood events, and use collected evidence to inform other flood risk documents.	FWMA	Set a clear definition of the level of investigation that will be undertaken, dependant on resources available.	Two published See Council Website Ongoing	Officer Resources	
				All RMA to cooperate by providing information promptly and to contribute to investigations where responsibility is not clear.			
				Update the SWMP Action Plan based on feedback from residents on flood events			
		3. Work towards better communication between 'Risk Management Authorities' and joint communication to residents in an emergency on action being taken.	Community	Develop a clear emergency communications process between residents and Council to be implemented during different types of flood event.	Long term objective	Officer Resources	
				Investigate and develop better communication on flooding between residents and the Council and other RMA, so as to coordinate a more effective response on the information to be provided, the action to be taken in the event of a flood and where to go for support.	Long term objective	Officer Resources	

Appendix 4 Community Engagement

Flood Risk Survey

A survey was undertaken in October /November 2015 to seek understanding of residents' flood risk priorities and how best to engage with them. This survey was placed on the Council web pages and emailed to residents who have contacted the Council about flooding issues in the last three years, as well as Street Champions. There were over 100 responses, which is more than most other Councils have received in response to formal consultations on Local Flood Risk Management Strategies.

There were a number of quantitative questions, the answers to these questions being set out in 'Figure 1 Survey Results' below.

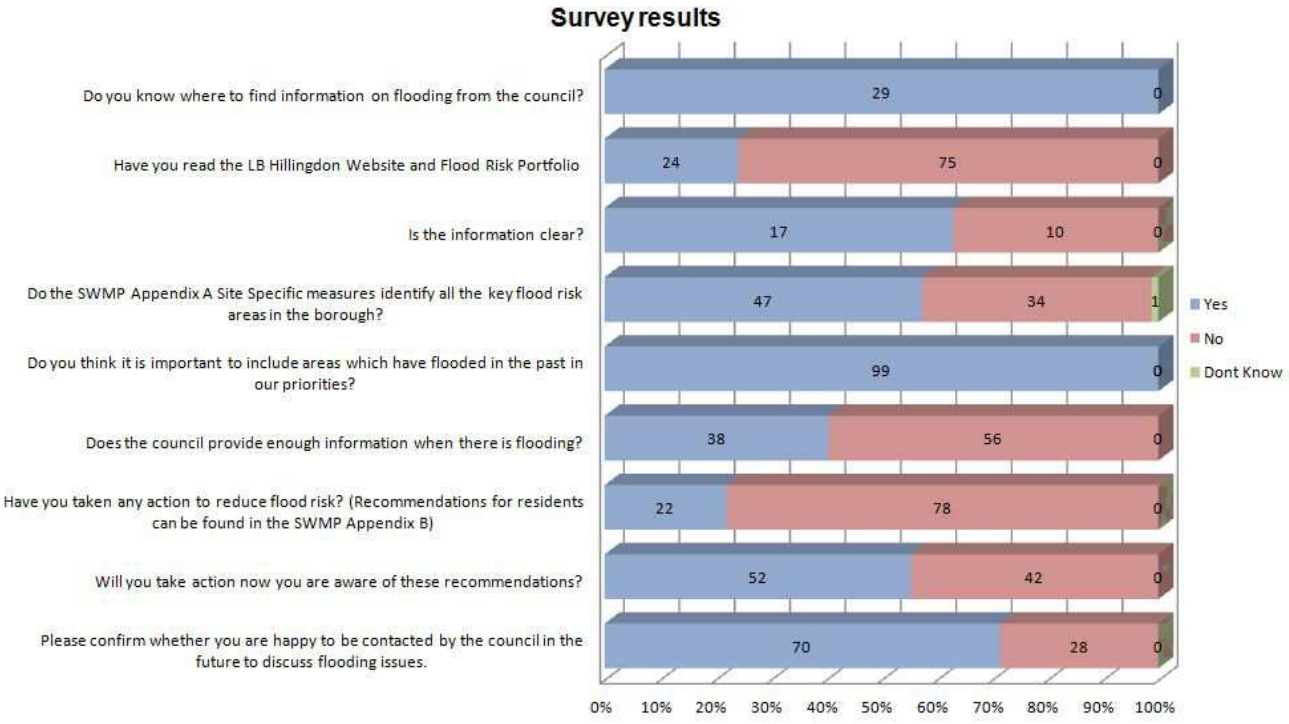

Figure 1 *Survey results*

In addition there were a number of open questions to allow residents to provide further information on the flooding they have experienced and issues that may have arisen. The feedback is summarised in the rest of this document.

The Survey started with a number of questions to understand the residents' knowledge of the information provided about flood risk by the Council, the results of which are mixed.

There are two key locations of information provided by the Council, focused on the Council web pages and documents within the Flood Risk Management Portfolio.

In the last year, the Council web pages on flood risk have been improved and further information provided on roles and responsibilities.

For residents, it appears that the documents within the Flood Risk Management Portfolio contain complex legal and technical information for flood risk professionals on modelling and mapping. The information provided by Consultants is on a borough wide basis, and focused on streams of work rather than a complete picture of the management of flood risk on a community level. For example the Strategic Flood Risk Assessment, which collates all information available, is undertaken to support the development of the Local Plan, and driven by legislative requirements. It appears from the open questions asked that, although the information contained in some of the documents may be useful, it is not presented in an easy way for communities to see all that is relevant in their area. For effective communication on flood risk issues with residents, flood risk information clearly needs to be provided on a community basis.

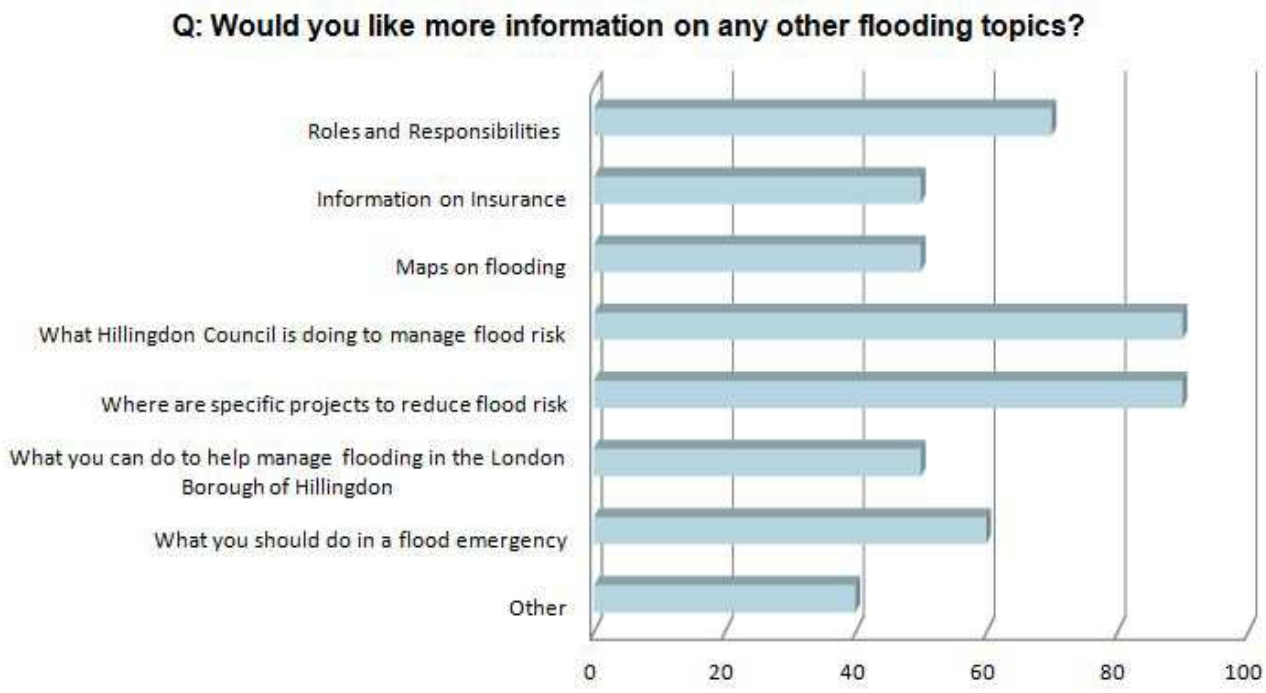

Figure 2 *Count of type of information on flood risk requested*

Although the SWMP Action Plan has included key areas that the Council were aware of having flooded, communities want to know that their flood issue has been recorded and the priority accorded it for investigation and action.

Both prior and during a flood event, residents feel that there is not enough communication from the Council about what is happening, and what actions the Council are taking. This lack of communication is also applicable to other flood risk management authorities, specifically Thames Water and the Environment Agency.
Where further investigation is warranted and there are sufficient resources, residents should have a means of discovering whether, or if, specific work has or will take place in their community to reduce flood risk.

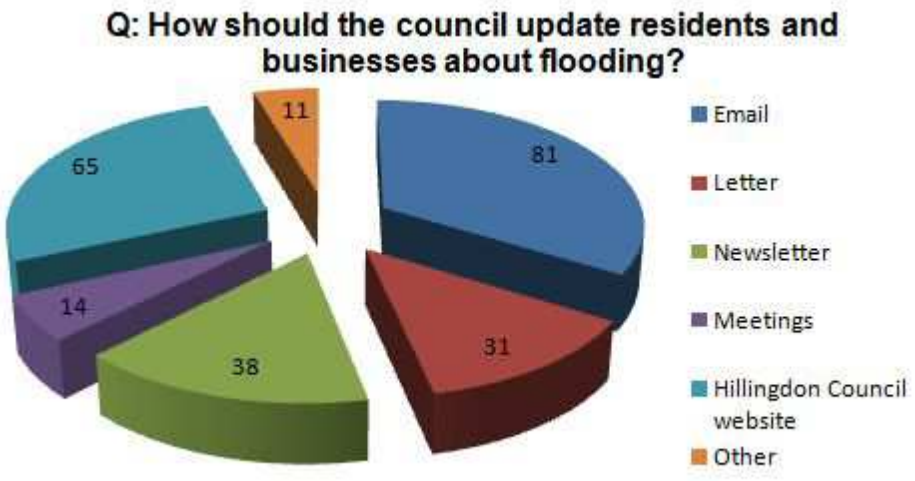

Figure 3 *Communication methods during a flood event*

Ways of providing feedback will have to be considered and costed in terms of resources before and during a flood event. Email, which is the favoured choice by the majority of residents, is a low cost option, but this will only focus on key contacts and not the whole community. However a number of those who responded to this survey belong to Residents Association groups and 'Friends groups', so those wider networks could be utilised to get a message quickly to a specific community group. The process of how this could be implemented, and by whom, would need to be reviewed in any internal flood plan proposed for the Council.

For flood risk projects, email is clearly the favoured choice for contacting residents about any proposed works in their area. Information on the Hillingdon website came a clear second.

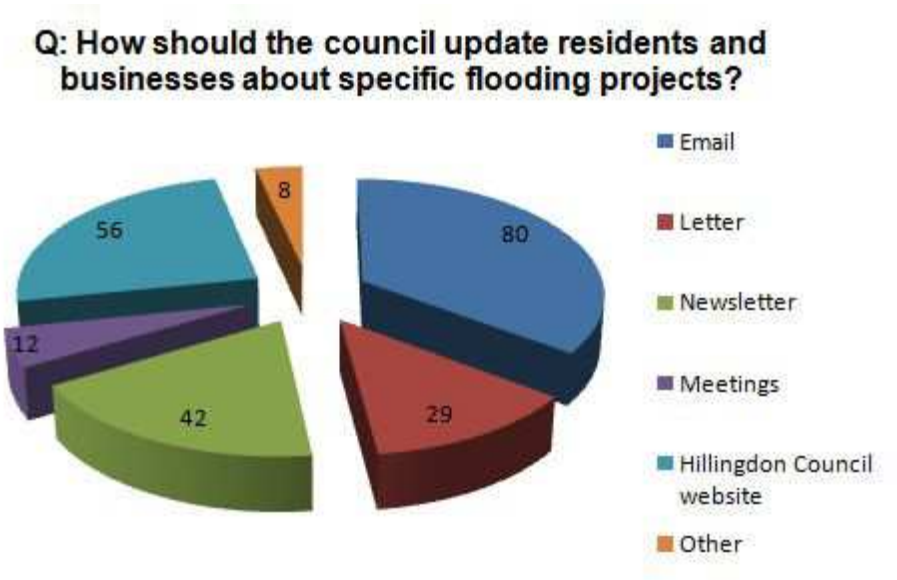

Figure 4 *Communication methods on a flood risk project*

Improving the layout and access to information on a community basis will help residents and businesses understand the risks more clearly, what they can do to take action, and who to ask for help, and how.

The survey will remain online for residents to continue contributing their views. The link to the survey is http://goo.gl/forms/liAL3A3gw1

Public Consultation on the draft Local Flood Risk Management Strategy

The subsequent Public consultation on the draft Local Flood Risk Management Strategy was sent out to over 200 people and organisations, including the statutory consultees; Natural England, Historic England and the Environment Agency. It was also sent to MPs, Councillors, key local bodies (such as residents associations), interestested parties who had previously commented on flood risk matters, adjoining LLFA and Councils, other RMA and major landowners in the Borough and the Hillingdon Local Resilience Forum.

The majority of comments were limited to issues which could be dealt with through making minor amendments to the Strategy. These focused around making clearer the purpose of the document, and providing clearer information for residents on which organisation to contact and how.

All statutory consultees expressed support for the Local Flood Risk Management Strategy as well as adjacent LLFA and other Local Authorities, viz:

> *"On behalf of the London Borough of Hounslow's Lead Local Flood Authority, I confirm that Hillingdon's Local Flood Risk Management Strategy (LFRMS) aligns with Hounslow's LFRMS. As a fellow member of the North West London Flood Risk Management Partnership group and a neighbouring borough I am pleased to note that Hillingdon have explained the importance of all Risk Management Authorities working together to mitigate the risks caused by the different sources of flooding. It is particularly important that Hillingdon and Hounslow Councils continue to work closely with their flood risk projects and procedures with the fluvial linkage of the River Crane and Heathrow Airport's surface water runoff into the borough. Both LFRMSs also highlight the importance of the implementation of sustainable drainage features wherever and work towards the London Plan surface water runoff requirements.".*
>
> *"As an adjoining local authority, Spelthorne Borough Council welcomes any future opportunity for joint working to manage flood risk in the area".*

Residents have been engaged with the process of the development of the Strategy with some key community groups, such as Ruislip, Ickenham and Harefield Residents Associations all of which provided responses.

> *"We appreciate the invitation to comment "*

The objectives and measures 1,2 and 6 which aim for improved community engagement, are supported although there was clear hope by residents that the Strategy would provide

more detailed information on a site specific basis, than was the aim and requirement of the document:

> *“most people in Hillingdon presumably lack basic understanding of what they can do to reduce flood risk and respond to flood events. The technical reports are great, but fundamentally it's people that matter”.*

Future community engagement will be a key focus of the next stage of flood risk management work in accordance with the objectives of the strategy.

Local Flood Risk Management Strategy
Strategic Environmental Assessment
Screening Report

Report Author:	Flood and Water Management Officer
Report Date:	February 2016
Revision:	FINAL

HILLINGDON
LONDON

Contents

Tables

Figures

1. Introduction

1.1. What is a Strategic Environmental Assessment (SEA)?

Article 3 of the SEA Directive 2001[1], states that SEAs

> *are mandatory for any local plan programme relating to, amongst other topics, water management*
>
> *AND which set the framework for future development consent of projects listed in the Environmental Impact Assessment (EIA) Directive 2009[2].*
> *OR*
> *have been determined to require an assessment under the Habitats Directive[3].*

The Directive was transposed into English legislation by the Environmental Assessment of Plans and Programmes Regulations 2004[4] (the 'SEA Regulation'), which came into force on 21 July 2004. It requires a Strategic Environmental Assessment to be carried out for all plans and programmes 'which are subject to preparation and/or adoption by an authority at national, regional or local level or which are prepared by an authority for adoption, through a legislative procedure by Parliament or Government, and required by legislative, regulatory or administrative provisions'. The few exceptions are detailed in Article 3 (8, 9) of the SEA Directive.

The aim of the SEA is to identify potentially significant environmental effects created as a result of the implementation of the plan or programme on issues specified in Annex 1(f) of the Directive, such as 'biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors'.

1.2. Screening for SEA

Prior to starting the SEA process a plan or programme would normally undergo 'screening'. The LGA Framework for Flood Risk Management Strategy[5] Figure 2 Application of the SEA to Plans and Programmes provides a useful guide to the process to determine whether the plan is subject to the SEA Directive and therefore requires an SEA. A summary of the process undertaken for this strategy is shown in *Figure 1 Summary of the process of application of SEA to the LFRMS*.

[1] https://www.gov.uk/government/publications/strategic-environmental-assessment-directive-guidance
[2] http://ec.europa.eu/environment/eia/eia-legalcontext.htm
[3] http://ec.europa.eu/environment/nature/legislation/habitatsdirective/index_en.htm
[4] http://www.legislation.gov.uk/uksi/2004/1633/schedule/1/made
[5] http://www.local.gov.uk/local-flood-risk-management/-/journal_content/56/10180/3618366/ARTICLE

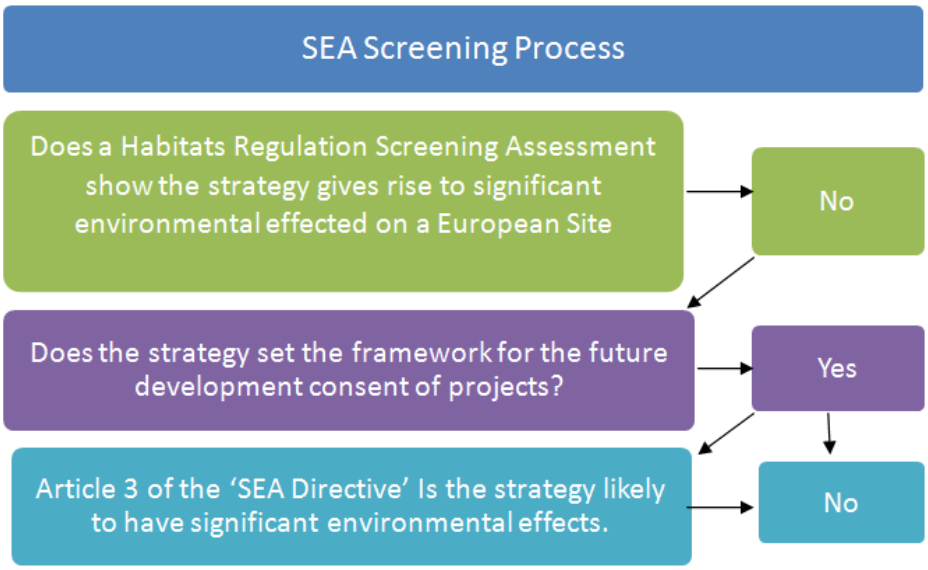

Figure 1 *Summary of the process of application of SEA to the LFRMS*

1.3. Local Flood Risk Management Strategy

As a Lead Local Flood Authority, the London Borough of Hillingdon has the responsibility of developing, maintaining, applying and monitoring a Local Flood Risk Management Strategy. The 'strategy' assesses the risk of flooding in the Borough, the flood risk management functions and the duty to set the framework and objectives for managing local flood risk, together with the measures proposed to achieve those objectives. This will be adopted by the Council.

The strategy is also required to contribute to the achievement of wider environmental objectives so it is important that it meets the aims of the Strategic Environmental Assessment (SEA) directive and the Water Framework Directive (WFD).

The main objective of the SEA is to integrate environmental considerations within policy development at the earliest opportunity, so as to demonstrate that the strategy has, as far as is practicable, met environmental concerns.

1.4. Purpose of this Report

The London Borough of Hillingdon is therefore, in this document, undertaking the screening phase of the SEA requirements for the Flood Risk Management Strategy. It also includes an initial assessment of existing environmental issues within the Borough, outlining possible future issues that may occur and/or may be exacerbated by the implementation of the Strategy. This highlights the environmental issues that need to be taken into account.

The assessment is performed through a comparison exercise of the Strategy objectives against SEA objectives.

2. Methodology

2.1. Stages of the SEA process

The methodology adopted has been developed in accordance with the following guidance:

- A practical guide to the SEA Directive[6]
- Local Government Association Framework for Local Flood Risk Management Strategy, 2nd edition[7]

Figure 2 below outlines the stages of the whole SEA process. This report comprises Stage A. The methodology is set out in relation to each of the tasks associated with Stage A.

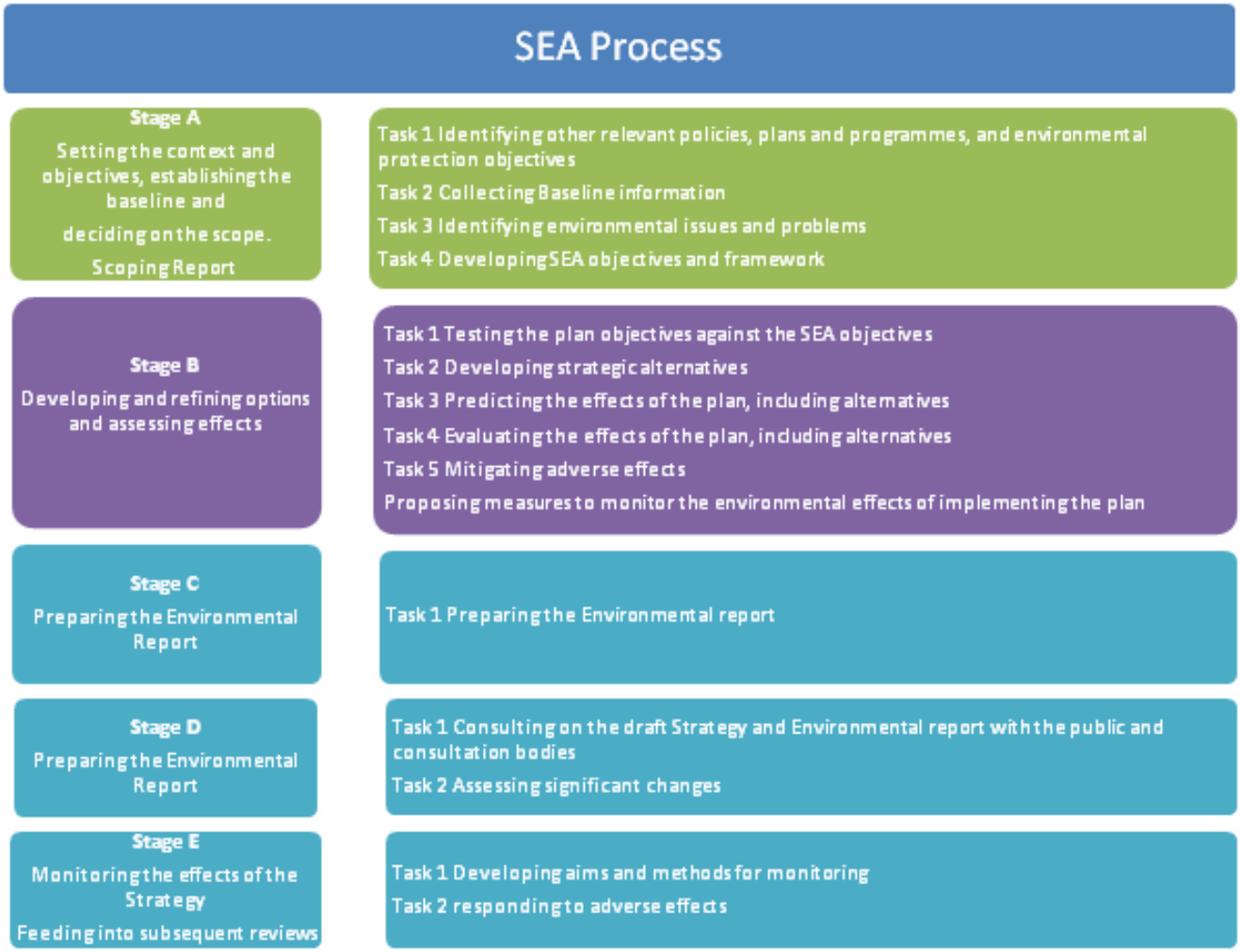

***Figure 2** SEA Process and Tasks*

[6] https://www.gov.uk/government/publications/strategic-environmental-assessment-directive-guidance
[7] http://www.local.gov.uk/local-flood-risk-management/-/journal_content/56/10180/3618366/ARTICLE

3. Stage A Task 1: Relevant policies, plans and programmes

The first task is to identify all policies, documents and legislation that impact on the Local Flood Risk Management Strategy. The majority of these are listed in Section 2 of the Hillingdon Local Flood Risk Management Strategy along with more detail on what they include.

International	**Date**	**Organisation**
EU Biodiversity Strategy	2011	EC
EU Birds Directive	2009	EC
EU Floods Directive	2007	EC
EU Habitats Directive	1992	EC
EU Water Framework Directive	2000	EC
EU Groundwater Directive	1980	EC
National		
Biodiversity – The UK Action Plan	1994	UK Government
Biodiversity 2020: A strategy for England's wildlife and ecosystem services	2011	Defra
Climate Change Act	2008	UK Government
Directing the Flow: Priorities for Future Water Policy	2002	Defra
Flood and Water Management Act	2010	UK Government
Flood Risk Regulations	2009	UK Government
Future Water, The government's water strategy for England	2008	UK Government
Guidance for risk management authorities on sustainable development in relation to their flood and coastal erosion risk management functions	2011	UK Government
Land Drainage Act	1991	UK Government
Making Space for Water	2005	Defra
National Flood and Coastal Erosion Risk Management Strategy for England	2011	Defra & EA
National Planning Policy Framework	2012	DCLG
National Planning Policy Guidance	2014	DCLG

National Standards for Sustainable Drainage Systems	2011	Defra
The Civil Contingencies Act	2004	UK Government
The Impact of Flooding on Urban and Rural Communities	2005	Defra & EA
The Pitt Review - Lessons learned from the 2007 summer floods	2009	UK Government
The SuDS Manual	2015	CIRIA
Water Act	2003	UK Government
Water for People and the Environment: Water Resources Strategy for England and Wales	2009	EA
The Localism Act	2011	UK Government
Regional		
London Regional Flood Risk Appraisal	2009	GLA
London Strategic Emergency Plan	2010	LRP
London Strategic Flood Framework	2012	LRP
Managing risks and increasing resilience: the Mayor's climate change adaptation strategy	2011	GLA
Thames Catchment Flood Management Plan	2009	EA
Thames Estuary 2100 Flood Risk Management Plan	2012	EA
Thames River Basin Management Plan	2015	Defra & EA
The London Plan	2011	GLA
The Colne Catchment Abstraction Management Strategy	2013	EA
Local		
Local Plan Part 1: Strategic Policies	2012	LBH
Local Plan Part 2	2014	LBH
Sustainable Community Strategy 2008-2018	2007	LBH
The Flood Risk Portfolio for LBH includes:		
Preliminary Flood Risk Assessment	2011	LBH
Strategic Flood Risk Assessment	2008	LBH
Strategic Flood Risk Assessment and Sequential test Addendum	2014	LBH

Surface Water Management Plan Part 1 Evidence Base	2013	LBH
Surface Water Management Plan Part 2 Options and Action Plan	2014	LBH

Table 1 *List of relevant plans and policies*

4. Stage A Task 2: Collecting baseline information

4.1. London Borough of Hillingdon baseline information

To ensure that the relevant data was collected and captured, the relevant themes in the environmental topics referred to in Annex 1 (f) of the SEA Directive were used:

- Population and Human Health
- Soil
- Water
- Noise and Air Quality
- Biodiversity,
- Climate Change
- Material Assets
- Cultural Heritage
- Landscape
- Transport

Information has been collected from a variety of sources, mainly other London Borough of Hillingdon documentation and the 2011 Census[8].

4.2. Population and Human Health

Table 2 2011 Population Census Results show that for the London Borough of Hillingdon the total population was:

Years old	2011 Census	%
0-4	19,704	7.2
5-15	37,189	13.6
16 - 24	37,570	13.7
25 - 59	131,509	48.0
60 - 74	30,847	11.3

***Table 2** 2011 Population Census Results Source GLA*[9]

Total population in Hillingdon in 2001 was 246,100, in 2011 it was 273,900 and the GLA predict that it will be 297,500 in 2015. The level of growth is faster than the average for England. Although a less densely populated London Borough, this density increased from 8.6 dwellings per hectare in 2001 to 9.0 in 2011.

[8] http://data.london.gov.uk/census/

[9] http://www.hillingdon.gov.uk/article/29581/Population-statistics

Hillingdon is also an ethnically diverse borough with 43% of residents from Black and Minority Ethnic groups. This is set out in detail in the document 'Ethnic Groups'.

Figures from the GLA indicate that, generally, those in Hillingdon have on average better health than most Londoners and that this health is improving.

The Council now has a more important role in Public Health. Data from Census 2011 shows that Hillingdon, in comparison with other London Boroughs, has a higher percentage of people with good or very good health. Further information about public health, and the Council's role, can be found on the Council's website in the Director of Public Health Annual report.[10] The link between the environment and health is outlined further in 'Better Environment - Better Health Guide[11]' produced by the GLA.

4.3. Soil

Agriculture is still a major land use within the Borough, providing both economic income and a visually pleasing environment which provides opportunities for informal recreation

The dominant solid geology, similar to most other London Boroughs, is the London Clay formation, although along the Colne Valley there are some areas of Chalk. Drift deposits of Langley silt overly River Terraced Deposits, which in a number of areas have been excavated in the southern part of Hillingdon. To the north, there are mainly pockets of Glacial Sand and Gravel (information obtained from the SFRA).

On the Council Contaminated land[12] webpages, three to four hundred sites within Hillingdon have been identified as being potentially contaminated. Over eighty sites have been identified as previously used as landfill. Of these landfills, 30-40% have been identified as being suitable for new use, for example agriculture, building land and nature conservation.

4.4. Water

4.4.1 Water Resources

The London Borough of Hillingdon covers two Catchment Abstraction Management Strategy areas identified within the Thames Catchment. The 'CAMS' for the Colne and London[13], set out how water resources are managed and the licensing needed for abstraction. They provide evidence that abstraction in Hillingdon will need to be carefully monitored in the future. The Environment Agency has also identified Groundwater Source Protection Zones where groundwater is abstracted for drinking. Two inner zones in the London Borough of Hillingdon, where activities which could affect groundwater must be strictly controlled, are illustrated in Figure 3, Map of Source Protection Zones, identified by the Environment Agency on the Environment Agency website[14].

[10] http://www.hillingdon.gov.uk/article/25203/Director-of-Public-Health-Annual-Report-for-2014
[11] https://www.london.gov.uk/priorities/health/focus-issues/better-environment-better-health-guides-for-london-boroughs
[12] http://www.hillingdon.gov.uk/article/8676/Contaminated-land
[13] https://www.gov.uk/government/publications/colne-catchment-abstraction-licensing-strategy
[14] http://apps.environment-agency.gov.uk/wiyby/37833.aspx

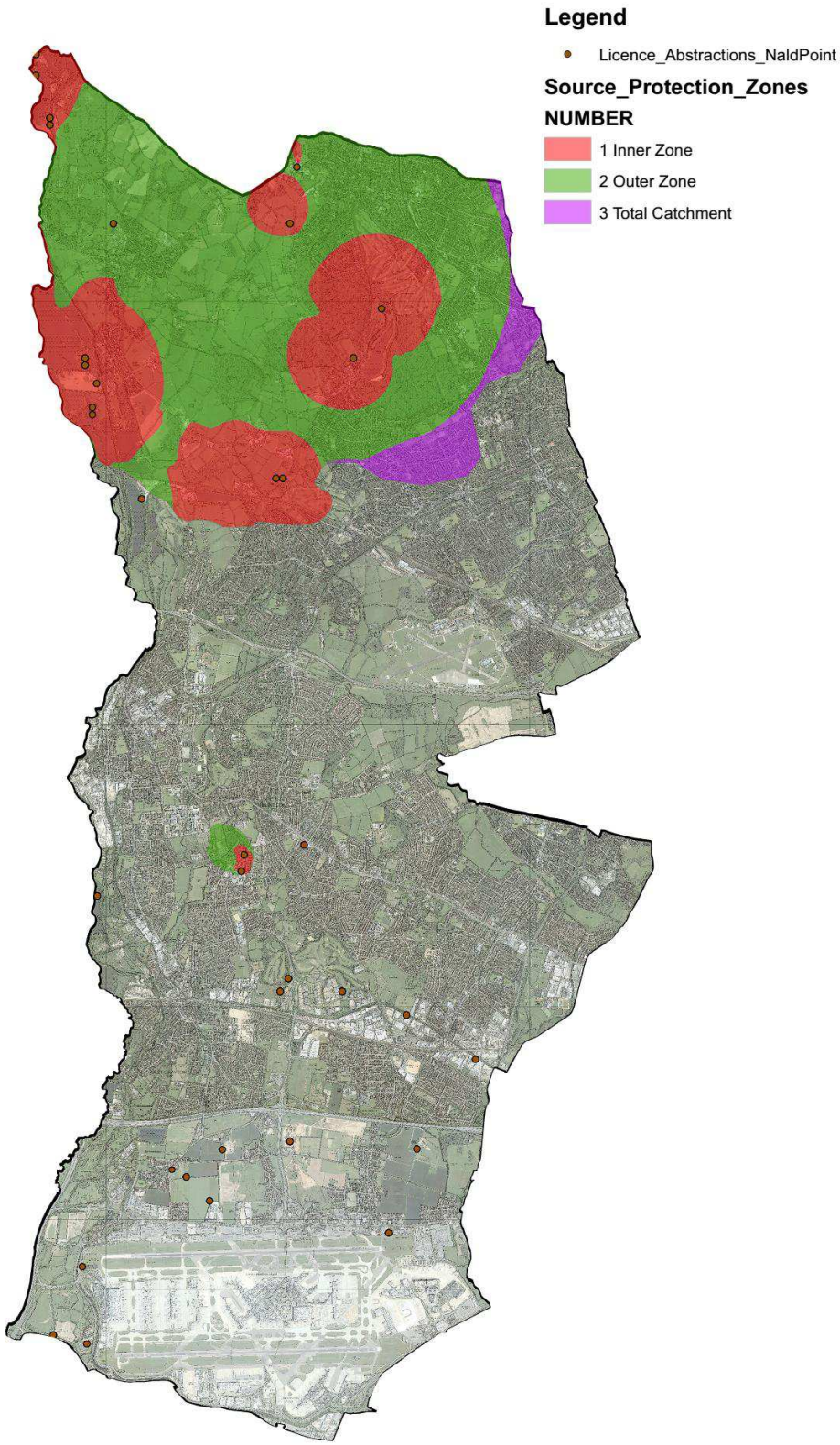

Figure 3 *Map of Source Protection Zones identified by the Environment Agency*

4.4.2 Flooding

The Flood Risk Portfolio of documents[15] produced by Hillingdon identifies the flood risks from a variety of flooding sources. The key risk is shown to be Surface Water affecting 29,300 residential properties and 1,300 non residential properties as well as key transport infrastructure.

4.4.3 Water Quality

The Water Framework Directive is a EU legislative approach to managing and protecting water. River Basin Management Plans identify the Yeading Brook, River Crane and River Pinn within Hillingdon as having a moderate water quality with the River Colne having 'good' status. Information on the status of each waterbody within the London Borough of Hillingdon can be found on the Environment Agency website Flood Maps for River Basin Management Plans[16] The key risks identified with water quality are poor phosphorous levels.

4.5. Air Quality

The European Union air quality policy sets the overall context for national policy. The aim of the EU policy is to develop an overall strategy through the setting of long-term air quality targets. These air quality limit values are set through a series of Daughter Directives. The UK National Air Quality Strategy defines the future air quality policy in the UK and sets objectives for several key air pollutants. Under the Local Air Quality Management regime, Air Quality is also one of the UK government's indicators of sustainable development. The indicator measures the number of days that pollutants (carbon monoxide, nitrogen dioxide, ozone, fine particles and sulphur dioxide) are above certain levels. The level of air quality in the borough remains a major and high profile issue, with parts of Hillingdon having some of the worst air quality in the country.

The Council has carried out a review and assessment of air quality in the Borough to identify if these air quality objectives will be achieved. Of the seven pollutants assessed, two have been identified as being of particular concern in Hillingdon, namely nitrogen dioxide and fine particulate matter (PM10). In 2001 an Air Quality Management Area (AQMA) was designated, comprising an area stretching from the Chiltern-Marylebone railway line in the north down to the southern Borough boundary. Since June 2004, an Air Quality Action plan has been in place setting out measures that will be pursued in order to improve air quality in the Borough. Further information can be found on the Council's website pages on Air Pollution[17].

4.6. Noise

The main issues relating to noise are the current patterns of problems relating to road traffic and noise connected with Heathrow airport. Heathrow is a major source of regular noise pollution along the flight paths and this could be exacerbated in the future with the potential for further airport expansion.

Road noise in London has been assessed and noise maps drawn up. Road noise along the major routes in the borough exceeds 80 decibels and 70 decibels in many areas.

[15] http://www.hillingdon.gov.uk/article/24117/Flood-risk-management

[16] http://maps.environment-agency.gov.uk/wiyby/wiybyController?topic=wfd_rivers&ep=map&x=513367.6705&y=177723.0005&scale=7&lang=_e&layerGroups=default&layerGroupToQuery=1&textonly=off#x=509895&y=182843&lg=1,8,9,5,6,&scale=7

[17] http://www.hillingdon.gov.uk/airpollution

4.7. Climate Change

Many of the challenges faced in local government are likely to be exacerbated by climate change. Infrastructure, buildings, businesses, and community cohesion are all likely to feel the impacts of more regular severe flooding, heatwaves, extreme weather events and reduced access to important resources like water. It is a key area for councils to engage in resilience thinking.

Local authorities are required to pay attention and take action in order to address many aspects of short and long term resilience to a changing climate. Recent legislation has made this an imperative for local government.

4.8. Biodiversity

The London Borough of Hillingdon contains a diverse mixture of built-up areas and open space, including agricultural land which constitutes much of the Green Belt, with a high ecological value.

The Borough does not contain any sites which carry a European designation and thus has no sites as part of the Natura 2000 network.

4.8.1 Special Scientific Interest (SSSI)

There are 500 hectares across 6 SSSI within the London Borough of Hillingdon: Denham Lock Wood, Frays Farm Meadows, Harefield Pit, Mid Colne Valley, Old Park Wood and the 300-hectare Ruislip Woods. Appendix 1 shows the 'Condition of the SSSI in Hillingdon' below. Most of the SSSI are for broadleaved woodland.

Hillingdon also contains a designated national nature reserve (NNR) at Ruislip Woods and five local nature reserves wholly or partially within the borough, covering 380 hectares.

4.8.2 Green Belt

As the westernmost borough in London, Hillingdon has over 123,000 acres of Green Belt land. This is vital for preserving London's character and distinctiveness, and for safeguarding the countryside.

4.8.3 Sites of Nature Conservation (SINC)

There are over 40 sites of importance for nature conservation (SINCs) present in the Borough. The 137 mile long Grand Union Canal passes through the Borough and is designated across London as a Site of Nature Conservation Importance. The 1920's saw the full integration of the water transport system, which started in 1793. This was once the busiest canal in the country linking London to the Midland cities of Birmingham and Leicester. The canal, which once supplied and transported goods from the industrial cities, now acts principally as a leisure destination, attracting walkers to its towpath and holidaymakers to its canal boats.

4.8.4 Woodland

Hillingdon contains 875 hectares of woodland, covering 7.6% of the Borough's area. This is a large amount for a London Borough and compares with the 8.5% average for the whole of England. Of the 875 hectares in Hillingdon, 810 are subject to tree protection orders (TPO).

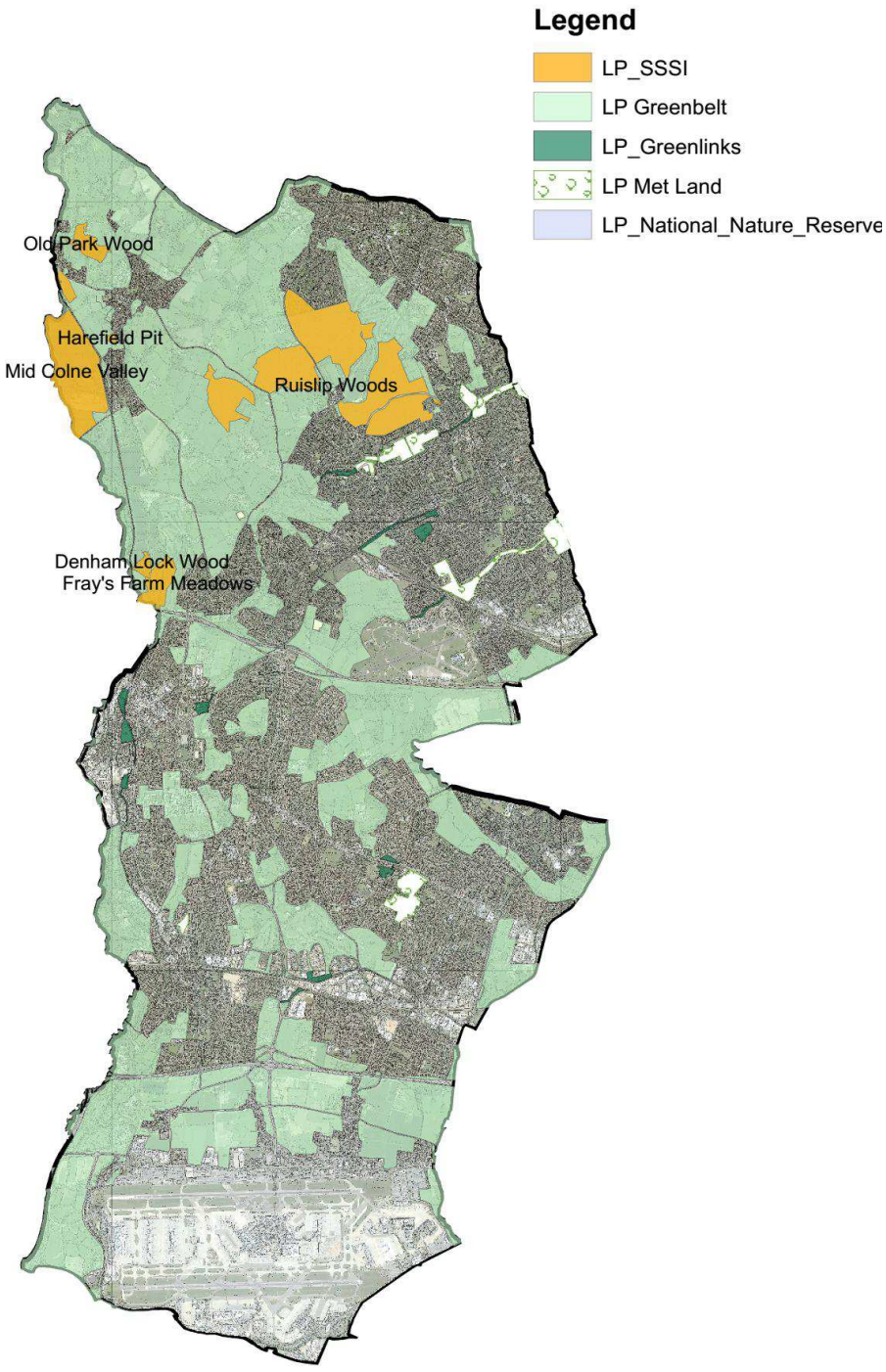

Figure 4 *Map of important biodiversity and landscape sites in Hillingdon*

4.9. Material Assets

The London Borough of Hillingdon has invested in many of its sports and leisure facilities, for example Ruislip Lido, Highgrove Pool, Hillingdon Sports and Leisure Centre and Botwell Green Community Sports and Leisure Centre. In addition, seventeen libraries have been either rebuilt or refurbished since 2007 as part of a £10m libraries investment programme. In addition the Borough has one of the largest schools programmes.

4.10. Cultural Heritage (Including architectural and archaeological heritage)

There are hundreds of designated assets within the Borough and many more that have been identified but not 'designated' as such. All of the following information can be found on the Hillingdon website on the Council Conservation and heritage[18] pages, and their relevant sources.

4.10.1 Scheduled Monuments

Within the Borough are five scheduled ancient monuments (SAM) none of which are deemed to be at risk. These are:

- **The Ruislip Motte and Bailey**
- **Manor Farm Moat, off Long Lane, Ickenham**
- **The moated site by River Pinn off Copthall Road West**
- **Brackenbury Farm Moated Site, Breakspear Road South**
- **The Barn at Manor Farm, Harmondsworth.**

Key areas are illustrated in Figure 5 Important Cultural Heritage Areas in Hillingdon, derived from supporting evidence from the Local Plan.

4.10.2 Archaeological Priority Areas (APA) and Archaeological Priority Zones (APZ)

Significant prehistoric sites at Three Ways Wharf, Uxbridge and at Heathrow Terminal Five have been excavated. The excavations at Heathrow have highlighted the Borough's potential for providing important information about the changing landscape of London from prehistory through to modern times. Currently, the Council has identified a number of Archaeological Priority Areas (APA) and Archaeological Priority Zones (APZ).

4.10.3 Historic parks and Gardens

Hillingdon has one entry in the register held by English Heritage: Harefield Place, which is designated grade II. The site comprises the earthwork remains of a 17th-century country mansion and later gardens including a brick arcade.

[18] http://www.hillingdon.gov.uk/article/9094/Conservation-and-heritage

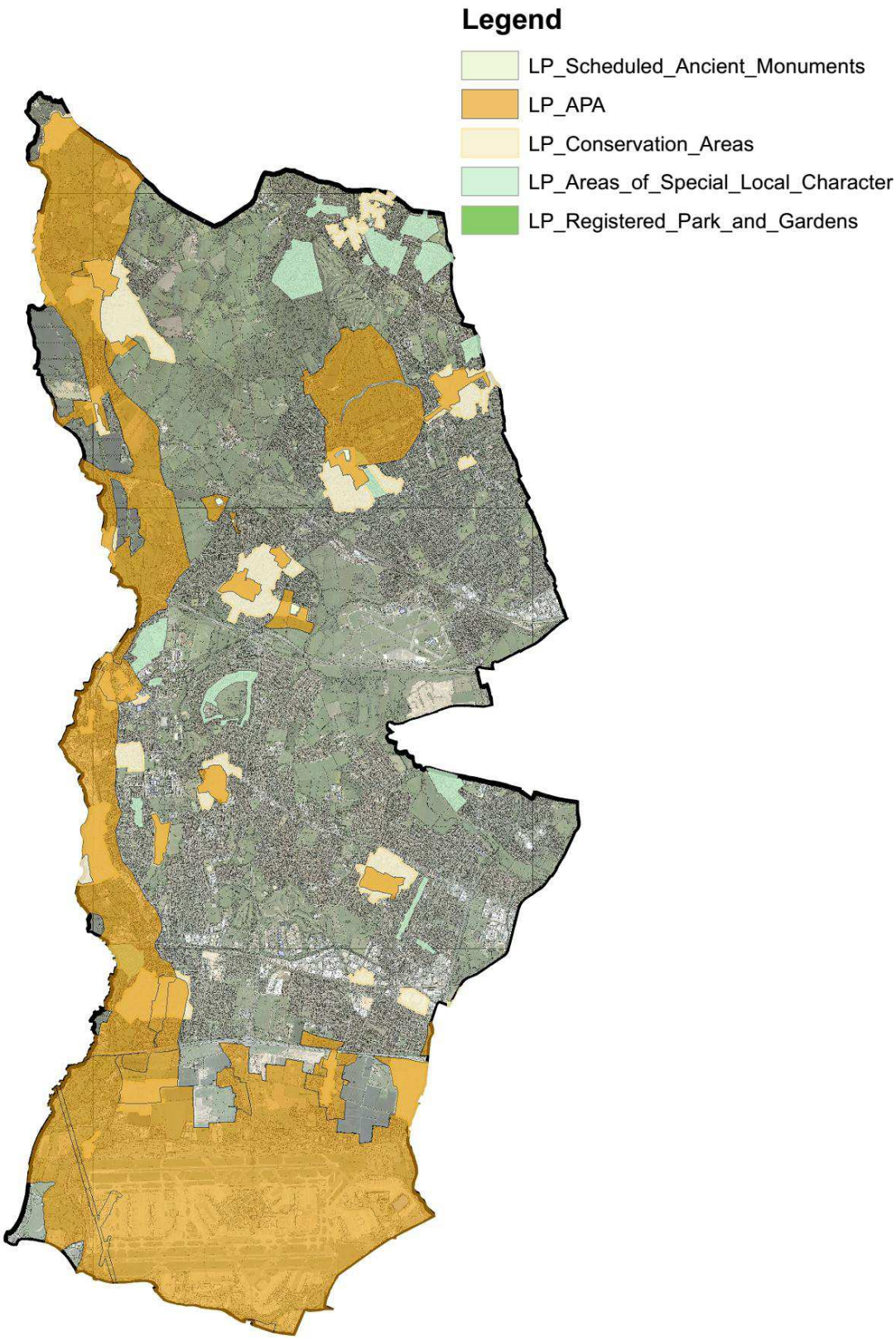

Figure 5 *Important Cultural Heritage Areas in Hillingdon*

4.10.4 Conservation Areas

The Borough contains 31 Conservation areas[19] (an area of special architectural or historic interest, the character or appearance of which it is desirable to preserve or enhance), more information on which can be found on the Council's website.

4.10.5 Listed Buildings

There are 423 statutory listed buildings in the borough, 9 Grade I, 29 Grade II and 385 Grade III. There are also 302 Locally Listed Buildings.

4.10.6 Areas of Special Local Character

There are 15 designated Areas of Special Local Character (ASLC). These are designated on the basis of their local architectural, townscape or historic merits, as defined in the adopted plan.

4.11. Landscape

As supporting evidence for the Local Plan, a Landscape Character Assessment has been undertaken[20]. Unlike many London Boroughs, Hillingdon is distinctive for its mix of landscapes. The Borough comprises 13 landscape types.

Hillingdon also contains Harefield, the only village remaining in London to be completely surrounded by greenfield land.

In addition as supporting evidence for the Local Plan Part 2 a Townscape Character Study[21] has been undertaken to support key strategic objective (SO1) in the Local Plan to "conserve and enhance the borough's heritage and their settings" and new development should use this study to ensure it works closely to create places and spaces which integrate with the existing understanding of townscape and identified opportunities.

English Nature has classified the Borough as being within the London basin natural area. The majority of the Borough is in the Thames Valley Countryside Character area, with the eastern fringe classified as the Northern Thames Basin (111) by the Countryside Commission.

4.11.1 Green and Open Space

Hillingdon contains over 5000 hectares of countryside and open land. Included within this total are 239 areas classified as green and open spaces, including 128 playgrounds and recreational spaces and parks of regional, metropolitan, district or local importance. The Borough has the highest number of Green Flag areas, (benchmark national standard for parks and green spaces) in England.

[19] http://www.hillingdon.gov.uk/article/22670/Conservation-areas-in-Hillingdon
[20] http://www.hillingdon.gov.uk/article/9123/Hillingdons-Landscape-Character-Assessment
[21] http://www.hillingdon.gov.uk/article/29909/Local-Plan-Part-2-evidence-base-studies

4.11.2 Metropolitan and Open Land (MOL) and Green Chains

MOL is a London designation and has same level of protection as Green Belt. The Local Plan Part 2 identifies the MOL and Green Chain Links within the Policies map. Hillingdon has identified strips of open land that link together to form 'green chains'. Much of this land is already designated as Green Belt, but green chains seek to provide additional access to open space, providing opportunities for countryside leisure for Hillingdon's residents and visitors and acting as wildlife corridors. The current green chains in the borough are:

- **Eastcote - West Drayton, along line of the River Pinn.**
- **Eastcote - Hayes, along line of Yeading Brook.**
- **Ruislip Manor - West Drayton, through Hayes Park, Town Hall Park and Stockley Park.**
- **Ickenham - West Drayton along line of the River Frays.**
- **Ruislip Manor - Harlington through Yeading, Minet Estate and Cranford Park.**
- **Grand Union Canal.**

4.11.3 Blue Ribbon Network

This is defined in the London Plan, 'Chapter 7: London Living Spaces and Places'.[22] It identifies a number of strategic waterways and corridors, alongside rivers, in Hillingdon which it is important to maintain and enhance.

4.12 Transport

Hillingdon is crossed by some major transport links into and out of London, including the M4, M40/A40, and major rail lines including the Chiltern Line and London underground network of the Piccadilly and Metropolitan and Central lines. It also contains the strategic airport of Heathrow and RAF Northolt.

[22] https://www.london.gov.uk/what-we-do/planning/london-plan/current-london-plan/london-plan-chapter-7/chapter-seven-london%E2%80%99s

5. Stage A Task 3: Identification of Environmental Issues

5.1. Identify existing or possible future environmental issues

From a review of the baseline information, there are a number of environmental issues that could be affected by the implementation of the strategy. These are outlined in Table 3 Environmental Issues.

Topic	Influence of the LFRMS
Population and Human Health	The LFRMS will need to ensure that the increasing population is located in the most sustainable location. Rising numbers living in households may increase demand for householder extensions within the floodplain, for which planning guidance will need to be provided to ensure flood risk does not increase. The LFRMS may affect public access to recreational features, goods and public services that can make a material difference to quality of life. The perceived level of flood risk that communities feel they are exposed to may also affect levels of stress and impact on Quality of Life. Opportunities for flood risk management schemes could improve access to areas, reducing risk and therefore levels of stress.
Soil	The LRMS projects will need to recognise and avoid contaminated areas and encourage the remediation of such land to allow the natural flow of groundwater. The LFRMS should influence gravel workings where the sensitive management of these sites will be needed to minimise impact on sensitive ground water levels and flood risk.
Water	The LFRMS may propose changes in construction and land use and flood risk frequency which may have the potential to affect water levels, and water quality.
Air Quality	The LFRMS should influence air quality projects to be able to incorporate flood risk reduction measures.
Biodiversity	The LFRMS may include changes in bio-diversity such as the plan to reduce non native species as well as construction, land use or flood risk and water levels which may affect nature conservation and biodiversity. This may improve existing habitats or create new features. The impact of the LFRMS on sites of international importance is reviewed separately in the Habitats Regulation Scoping report.
Climate Change	There is a greater potential for shorter heavier storm events, increasing the likelihood of surface water flooding. Also, Hillingdon is in the South East of England, the driest area of the UK, and additional growth could increase water stresses in summer. More sustainable ways of managing flood risk increase the resilience and capacity to adapt. This will be one of many ways in which future climate change can be managed.

Material Assets	The LFRMS could result in improved flood risk management of Hillingdon's assets, thus reducing flood risks.
Cultural Heritage	The LFRMS may propose changes in construction, land use and flooding which have the potential to adversely affect historic environment sites and their settings. It may also manage the flood risk to heritage features or lead to improved access to historic sites.
Landscape	There is likely to be a continuing increase in development, reducing permeable surfacing and thus increasing surface water run off. The LFRMS may include changes in construction, land use, flood risk frequency or water levels that have the potential to adversely affect landscape features. Alternatively proposals may include opportunities to create and diversify landscape features.
Transport	The LFRMS will seek to manage flood risk to and from existing critical infrastructure within Hillingdon. It should also influence major infrastructure to ensure flood risk is fully assessed and monitored before, during and after construction. One of the key issues affecting Hillingdon is major transport infrastructure projects: HS2 and the possible 3rd Runway at Heathrow.

Table 3 *Environmental Issues*

6. Stage A Task 4: SEA Objectives

6.1. Creating the SEA Objectives

In a Practical Guide for Strategic Environmental Assessment, Appendix 5, Figure 11 provides examples of SEA objectives and indicators. These should be adapted to local circumstances by deletions, additions or refinements. They have been considered and refined and the following shown in Table 4 are proposed for comparison with the Local Flood Risk Management Strategy objectives and actions:

SEA 1	Maintain, and enhance where possible, leisure and recreational benefits within and adjacent to water bodies
SEA 2	Prevent any decline in the quality or quantity of water resources and enhance the WFD status of rivers where possible
SEA 3	Enable local economic growth and development
SEA 4	Promote sustainable development to reduce and mitigate the potential impacts of climate change on water resources
SEA 5	Maintain and enhance biodiversity and habitats near water

Table 4 *List of SEA Objectives*

7. Next Steps and Conclusions

The significance of the effect is ranked, in Table 5 using the following criteria and giving consideration to the factors outlined.

LFRMS Objective		SEA Objective				
		1	2	3	4	5
1	Develop the knowledge and awareness of different flood risks, and roles and responsibilities in managing flooding	0	0	0	0	0
2	Maintain and improve communication and cooperative working between strategic parties, flood risk management authorities and the public.	+	+	+	0	0
3	Ensure that development in Hillingdon takes account of flood risk issues and plans to reduce them	+	+	+	+	+
4	Identify and implement new flood risk management measures.	+	+	+	+	+
5	Promote the effective management of flood risk assets.	0	0	+	0	0
6	Ensure that emergency plans and responses to flood incidents are effective and that communities understand their role in an emergency	0	0	0	0	0

Table 5 *Effect of the Flood Risk Management Strategy*

7.1. Impact

The strategy is at a high level and the potential effects are therefore fairly generic. However from this work the strategy objectives and or actions will not cause any threat or damage to the environment and will not reduce the protection that the Council provides the environment. In fact by improving flood risk management, it may have a beneficial impact on other environmental issues, such as residents' health, by reducing worry and concern over flooding.

As a consequence, this scoping report and initial testing of the plan objectives against the SEA objectives no Environmental report is required.

It is expected that the Flood Risk Management Strategy and the documents within the London Borough of Hillingdon's Flood Risk Management Portfolio which inform the strategy, will be updated and specific flood risk management schemes developed. There is potential for positive impacts by pursuing mutual benefits that could help contribute to achieving key environmental issues for the London Borough of Hillingdon, as identified within this document.

EIA Directive Annex II, states that Infrastructure Projects, such as flood relief works and installations to store water on a long term basis, may also still require an Environmental Impact Assessment.

All future flood risk schemes should have regard to the key environmental issues that Hillingdon face, and consider opportunities to contribute to the other environmental aims and objectives identified as priorities for the London Borough of Hillingdon.

Appendix 1 List of SSSI

SSSI Site Name	Natural England Site Information System (ENSIS) ID	Description	Main habitat Type	Unit	Condition
Denham Lock Wood	1001883	Denham Lock Wood is a diverse area of open mire and wet woodland which shows a zonation of wetland habitats occurring rarely in Greater London.	Broadleaved, mixed and yew woodland - lowland	1	Favourable
Fray's Farm Meadows	1002024	Fray's Farm Meadows are one of the last remaining examples of relatively unimproved wet alluvial grassland in Greater London and the Colne Valley	Unfavourable recovering	1	Neutral grassland - lowland
Harefield Pit	1001658	Harefield Pit provides a key section in the London Basin for a sequence through the Upper Chalk,Reading Beds and London Clay. It is also the only known site for calcareous floral remains in the Reading Beds.	Earth heritage	1	Unfavourable no change
Mid Colne Valley	1003469	The Mid Colne Valley is of significant ornithological interest, particularly for the diversity of breeding woodland and wetland birds, and for the numbers of wintering wildfowl. On the eastern valley slope is one of the last remaining examples of unimproved chalk grassland in Greater London.	Calcareous grassland - lowland	1	Unfavourable recovering
			Standing open water and canals	2	Unfavourable declining
			Standing open water and canals	3	Favourable
			Standing open water and canals	4	Unfavourable recovering

Old Park Wood	1003546	Old Park Wood comprises some of the most floristically rich ancient woods in Greater London and contains complex transitions through examples of widely differing woodland types.	Broadleaved, mixed and yew woodland - lowland	1	Favourable
			Broadleaved, mixed and yew woodland - lowland	2	Favourable
			Broadleaved, mixed and yew woodland - lowland	3	Favourable
			Fen, marsh and swamp	4	Favourable
Ruislip Woods	103633	The Ruislip Woods form an extensive example of ancient semi-natural woodland, including some of the largest unbroken blocks that remain in Greater London.	Broadleaved, mixed and yew woodland - lowland	1, 3-8	Favourable
			Acid grassland - lowland	2	Unfavourable recovering

Local Flood Risk Management Strategy Habitat Regulations screening for Appropriate Assessment

Report Author:	Flood and Water Management Officer
Report Date:	February 2016
Revision:	FINAL

HILLINGDON
LONDON

Contents

Tables

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1. Introduction

1.1.What is Appropriate Assessment?

The Conservation of Habitats and Species Regulations 2010 includes the following requirement:

> *Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives.*

The London Borough of Hillingdon is therefore required to ensure that Part 2 of its Local Plan does not have a significant effect on any of the following:

- Special Protection Areas (SPA)
- Special Areas of Conservation (SAC)
- Candidate Special Protection Areas (cSPA)
- Candidate Special Areas of Conservation (cSAC)
- Sites of Community Importance (SCI)
- Ramsar Sites

These sites are collectively known as Natura 2000 sites, except for Ramsar sites which are designated through different legislation. For the purposes of this report, they will be collectively known as 'designated sites'. If significant effects to these designated sites are deemed likely, the Council must undertake an appropriate assessment of the relevant plan.

1.2. Background to Flood Risk Management Strategy

As a Lead Local Flood Authority, the London Borough of Hillingdon has the responsibility to develop, maintain, apply and monitor a Local Flood Risk Management Strategy. This 'strategy' assesses the risk of flooding in the borough, the flood risk management functions and the objectives for managing local flood risk along with the measures proposed to achieve those objectives.

1.3. Purpose of this report

An appropriate assessment will only be required if the Flood Risk Management Strategy is considered to have an effect on European Designated sites. Although there are no designated sites within the London Borough of Hillingdon, there are several within 15 km of its boundary.

The purpose of this report is to determine the need for a full appropriate assessment. It comprises a screening stage of the appropriate assessment process and makes a determination as to whether the Plan is likely to have a significant effect on a European site.

If this screening process determines that significant adverse effects are anticipated, then full appropriate assessment will be required. This will be undertaken in consultation with Natural England if it is considered necessary.

2. Methodology

There are a number of necessary steps to be taken before the assessment of likely significant effects can be made, referred to as the 'screening process'. The flowchart, in Figure 1 below, outlines the stages of this process. The methodology is set out in relation to each of the numbered stages.

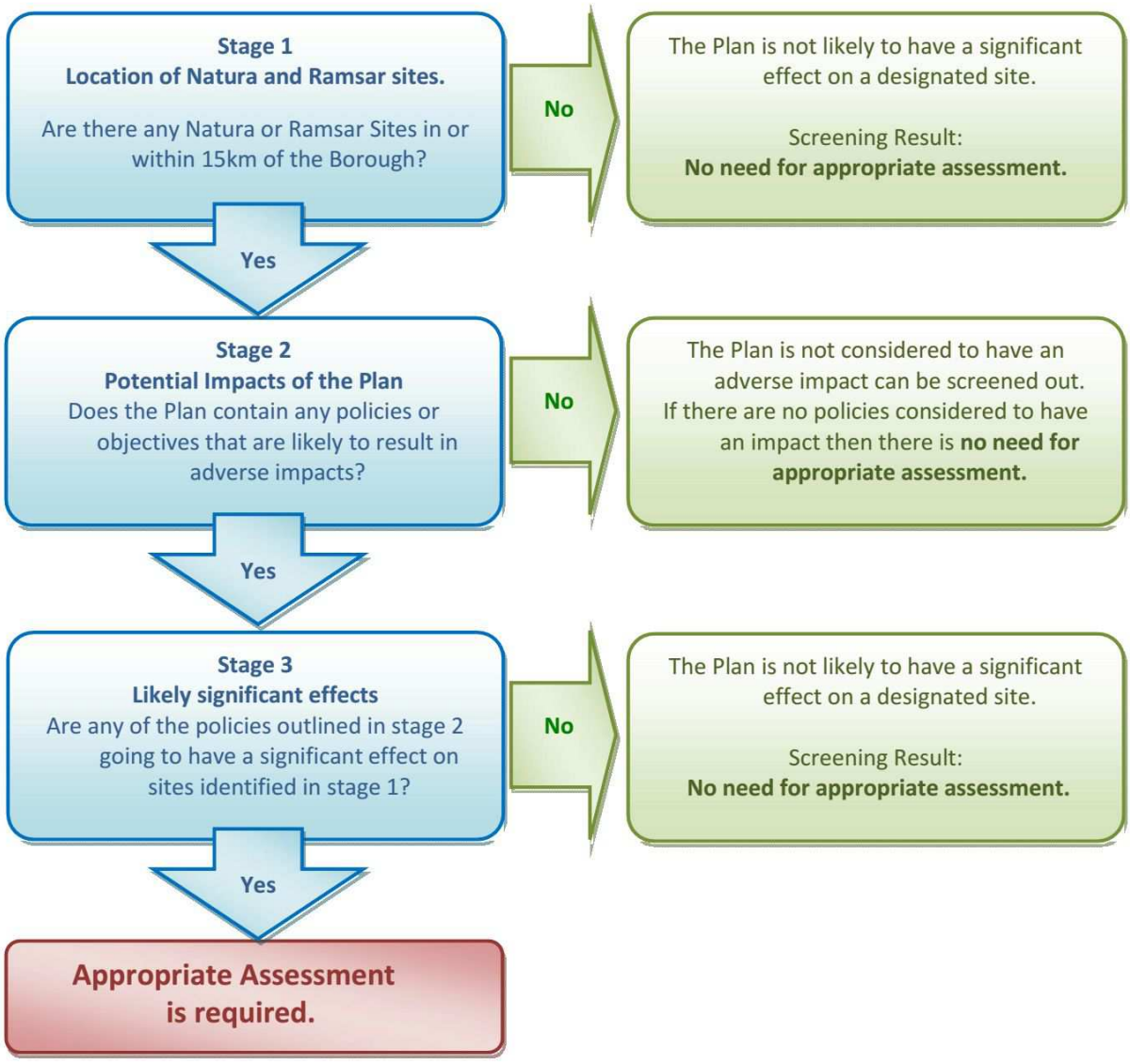


Figure 1 *Stages of the HRA screening process*

2.2. Stage 1: Location of Natura and Ramsar Sites

The first stage of the assessment process is to decide if there are any relevant designated sites within close proximity with the potential to be affected.

This report uses a similar methodology to the London Plan when assessing how to select the relevant European Sites. The location criteria used in the London Plan was based on criteria recommended by Natural England. This assessed European Designated sites within 10km of the boundary of Greater London. It is considered that impacts beyond this zone become dispersed and less likely to be significant in the context of the Habitats

Directive. This approach has been taken within the supporting evidence for the recently published Local Plan Part 2.

2.3. Stage 2: Possible impacts of Flood Risk Management Strategy

Flood Risk Management Strategy sets out the proposed direction of flood risk management for the London Borough of Hillingdon. It contains objectives which could affect the aquatic environment. It is therefore necessary to determine the scope of these impacts and the extent to which they are significant.

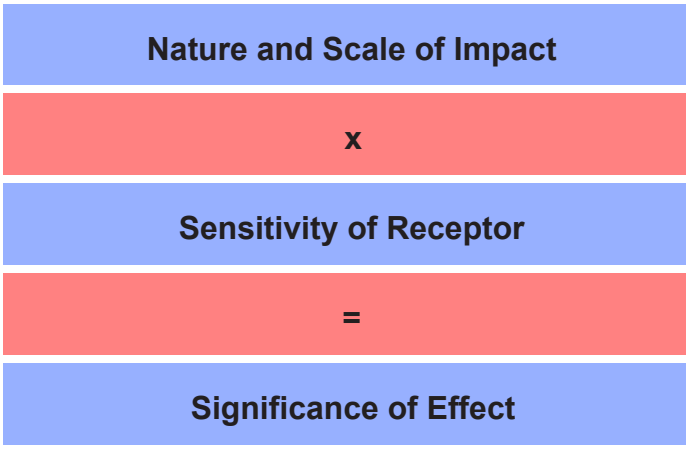
	Criteria for assessing effects
No Negative Effect *Reason why policy or allocation will have no negative effect*	
A1	Options / policies that will not themselves lead to development e.g. because they relate to design or other qualitative criteria for development, or they are not land use planning policies
A2	Options / policies intended to protect the natural environment, including biodiversity
A3	Options / policies intended to conserve or enhance the natural, built or historic environment, where enhancement measures will not be likely to have negative effect on a European Site
A4	Options / policies that positively steer development away from European Sites and associated sensitive areas
A5	Options / policies that could have no effect because no development could occur through the policy itself, the development being implemented through later policies in the same plan. These later policies being more specific, it would be more appropriate to assess them for their effects on European Sites and associated sensitive areas
No significant effect *Reason why policy could have a potential effect*	
B	Elements of the plan / options that could have an effect, but the likelihood is there would be no significantly negative effect on a European Site, either alone or in combination with other elements of the same plan, or other plans or projects.
Significant Effect *The policy makes provision for a quantum, or kind of development or land use that in the location(s) proposed would be likely to have a significant effect on a European Site. The proposal must be subject to appropriate assessment to establish, in the light of the site's conservation objectives, whether it can be ascertained that the proposal would not adversely affect the integrity of the site.*	
C	Likely significant effect alone
D	Likely significant effects in combination

***Table 1** Criteria for assessing effects*

Table 1 outlines the methodology and criteria that is used for determining effects.

2.4. Stage 3: Likely significant effects

If there are sites within close proximity to the Borough where the Flood Risk Management Strategy is considered to have potential impacts, then it is necessary to develop a method to define 'significant effects'. Standard environmental assessment uses the following principle to assess an effect:



2.5. Nature and scale of impact

This report adopts the same methodology as the Sustainability Appraisal for assessing significant effects. It is a standard environmental assessment approach which uses the following criteria to define the extent and magnitude of an impact:

- Effect duration (whether short, medium or long term)
- Effect nature (whether direct or indirect, reversible or irreversible)
- Whether the impact occurs in isolation, is cumulative or interactive
- Performance against environmental quality standards or other relevant pollution control thresholds
- Compatibility with environmental policies

2.6. Sensitivity of receptor

For the purposes of this report, the receptor is the conservation site with an international designation. It considers the conservation objectives for the site, the current status and its reasoning for being designated. The sensitivity of the receptor is specific to the designated site.

2.7. Significance of effect

The significance of the effect is ranked using the following criteria, giving consideration to the factors outlined in Table 1 Criteria for assessing effects.

Symbol	Likely Effect on the SA Objective
+ +	A likely significantly positive effect
+	A likely positive effect
0	No significant effect or clear link
-	A likely negative effect
- -	A likely significantly negative effect

3. Stage 1: Location of Natura and Ramsar Sites

3.1. Summary of designated sites considered

There are no sites within the London Borough of Hillingdon. The table below show the Natura 2000 and Ramsar sites within 10km of the London Borough of Hillingdon.

Site	Designation	Distance from LB Hillingdon
South West London Waterbodies SPA/Ramsar ● King George VI Reservoir ● Wraysbury Reservoir ● Staines Moor Reservoir ● Wraysbury and Hythe Gravel Pits ● Wraysbury Number 1 Gravel Pit	SPA Ramsar	0.5+ km
Windsor Forest and Great Park	SAC	6.5 km
Richmond Park	SAC	8.5 km
Burnham Beeches	SAC	9.0 km

Table 2 *Natura and Ramsar sites within 10km of the London Borough of Hillingdon*

3.2. Summary of designated sites not considered

The table below show the Natura 2000 and Ramsar sites outside 10km and within 15km of the London Borough of Hillingdon.

Sites within 15km but screened out due to their distance from the Borough		
Site	**Designation**	**Distance from LB Hillingdon**
Thames Basin Heaths	SPA	11.5 km
Thursley, Ash, Pirbright and Chobham Commons	SAC	11.5 km
Wimbledon Common	SPA	12.5 km
SAC	**Special Area of Conservation**	
SPA	**Special Protection Area**	
Ramsar	**Named after location of first Convention on Wetlands (Ramsar, Iran, 1971)**	

Table 3 *Natura and Ramsar sites within 15km but over 10km*

3.3. Information on the designated sites considered for the screening

South West London Waterbodies	Distance	Designation Type	Designation Ref
	0.5+ km	SPA	UK9012171
		Ramsar	UK11065
Qualifying Habitat Features	The European and Ramsar sites comprise a series of seven embanked water supply reservoirs and former gravel pits that support a range of man-made and semi-natural open water habitats. The reservoirs and gravel pits function as important feeding and roosting sites for wintering wildfowl. These habitats support internationally important populations of gadwall and shoveler. For this reason the South West London Waterbodies are designated as a SPA and a Ramsar site.		
Qualifying Species Features	Northern shoveler (Anas clypeata) and gadwall (Anas strepera) occur at levels of international importance. The site also supports nationally important numbers of great crested grebe (Podiceps cristatus cristatus), great cormorant (Phalacrocorax carbo carbo) and tufted duck (Aythya fuligula).		
Current Condition and Threats	Future decommissioning of reservoirs and maintenance works requiring reservoir draw-down. Recreational and development pressures have potential implications.		
Result of Latest Survey	There are 7 SSSIs that form part of the South West London Waterbodies SPA/Ramsar within 10 km of the plan area, of which Kempton Park Reservoir, Knight and Bessborough Reservoirs, Wraysbury Reservoir and Thorpe Park No. 1 Gravel Pit are in 100% favourable condition. The condition of the other SSSIs are: Langham Pond: 63% favourable and 37% unfavourable recovering Wraysbury and Hythe End Gravel Pits: 85% favourable and 15% unfavourable recovering Wraysbury No. 1 Gravel Pit: 100% unfavourable declining.		
Key Ecosystem Factors	● Water area ● Water depth ● Extent and distribution of habitat ● Food availability ● Vegetation characteristics ● Population size of species		

Windsor Forest and Great Park	Distance	Designation Type	Designation Ref
	6.5km	SAC	SAC UK0012586

Qualifying Habitat Features	Primary Reason for Selection: Old acidophilus oak woods with Quercus robur on sandy plains. The site is one of only four known outstanding localities in the UK and has the largest number of veteran oaks Quercus spp. in Britain. It is of importance for its range and diversity of saproxylic invertebrate fauna, including many rare species only known in the UK at this site. Secondary Reason for Selection: The significant presence of Atlantic acidophilus beech forests with Ilex and sometimes also Taxus in the shrub layer (Quercion robori-petraeae or Ilici-Fagenion).
Qualifying Species Features	Primary Reason for Selection: The habitat for Violet click beetle 'Limoniscus violaceus'. Windsor Forest and Great Park has the first recorded sighting of the species, and is thought to support the largest of the three known outstanding populations in the UK. Due to the population of ancient trees and the historic continuity of woodland cover, the site is listed as the most important in the UK for fauna associated with decaying timber on ancient trees. The site is also considered to potentially be of international importance for its saproxylic invertebrate fauna.
Current Condition and Threats	Management practices are a threat to both the oak woodland and invertebrate fauna with habitat availability an additional pressure upon the invertebrate fauna. The presence of invertebrate species interest is dependent upon a continuous supply of very old and decaying trees.
Result of Latest Survey	The condition of Windsor Forest and Great Park SSSI is predominantly unfavourable recovering (54%) with 46% in favourable condition.
Key Ecosystem Factors	● Extent ● Species ● Population size of species ● Number of veteran oak species ● Quantity and size of fallen and decaying timber

Richmond Park	**Distance**	**Designation Type**	**Designation Ref**
	8.5km	SAC	SAC UK0030246
Qualifying Habitat Features	N/A		

Qualifying Species Features	The habitat for Stag Beetle Lucanus cervus. Richmond Park has a large number of ancient trees with decaying timber. It is at the heart of the south London centre of distribution for stag beetle, and is a site of national importance for the conservation of the fauna of invertebrates associated with the decaying timber of ancient trees.
Current Condition and Threats	Due to its location in a densely populated urban area, the site experiences heavy recreational pressure.
Result of Latest Survey	The condition of Richmond Park SSSI is predominantly unfavourable: no change (86%), with 8% unfavourable recovering and 6% favourable.
Key Ecosystem Factors	● Quantity of decaying timber of ancient trees ● Condition and position of fallen timber ● Species ● Population size of species ● Species, habitats, structures characteristic of the site.

Burnham Beeches	**Distance**	**Designation Type**	**Designation Re**
	9.0km	SAC	SAC UK0030034
Qualifying Habitat Features	Primary Reason for Selection: Atlantic acidophilus beech forests with ilex and sometimes also Taxus in the shrub layer (Quercion robori-petraea or Ilici-Fagenion) Burnham Beeches is an extensive area of former beech wood-pasture with many old pollards and associated beech Fagus sylvatica and oak Quercus spp. high forest. Surveys have shown that it is one of the richest sites for saproxylic invertebrates in the UK, including 14 Red Data Book species. The site also retains nationally important epiphytic communities, including the moss Zygodon forsteri.		
Qualifying Species Features	NA		
Current Condition and Threats	The site is potentially under pressure from adjacent land-uses, in particular mineral workings which have the potential to lead to changes in atmospheric dust and hydrological regime in the locality. Aerial pollutants also pose a threat to the site, with ambient levels of sulphur and nitrogen oxides in the area indicating that Environment Agency criteria levels for sensitive vegetation are being exceeded.		
Result of Latest Survey	The condition of Burnham Beeches SSSI is predominantly in favourable condition (63%) with 37% in unfavourable recovering condition.		
Key Ecosystem Factors	● Extent ● Woodland structure		

	• Presence of mature tree species • Species

4. Stage 2: Possible impacts

4.1. Introduction to the possible impacts of the Local Flood Risk Management Strategy

This stage is to establish if the Flood Risk Management Strategy contains any policies or objectives likely to result in adverse impacts. There are no designated sites within the Borough boundary and therefore any impacts will be indirect. The impacts of the Flood Risk Management Strategy are limited to changes in habitat as a result of changes to the water environment. None of the designated sites are linked hydraulically to the waterbodies within the Borough.

4.2. Flood Risk Management Strategy elements assessed

	Objectives	Category	Appropriate Assessment required?
1	Develop the knowledge and awareness of different flood risks, and roles and responsibilities in managing flooding	A5	No This strategy objective is about awareness and information sharing
2	Maintain and improve communication and cooperative working between strategic parties and flood risk management authorities and the public.	A5	No This strategy objective is about awareness and information sharing
3	Development in Hillingdon takes account of flood risk issues and plans to effectively reduce flood risk	A2	No This strategy objective is about the need to locate new development sensitively, protecting existing floodplains not altering their location.
4	Identify and implement new flood risk management measures where funding can be secured.	B	No. There could be a potential impact on the general hydraulic environment as a result of this objective but the Borough is not hydraulically linked to the designated sites
5	Promote the effective management of flood risk assets.	A5	No This strategy objective promotes the appropriate management of existing structures

6	Ensuring that emergency plans and responses to flood incidents are effective and that communities understand their role in an emergency	A5	No This strategy objective is about awareness and information sharing so that response in an emergency is effective

Table 4 *Table of the categorisation of the Flood Risk Management Strategy Objectives*

5. Stage 3: Likely significant effects

5.1. No identified likely significant effects

Stages 1 and 2 of the screening process have identified the Flood Risk Management Strategy objectives would have no likely significant impacts on any of the designated sites. Therefore no further assessment to quantify the impacts is required.

6. Conclusions

6.1. No Habitat Regulations Appropriate Assessment required

As part of the requirements of the Habitats Directive, any plan or project needs to be assessed in accordance with the Habitats Directive. This report used three stages to investigate the likely effects of the Flood Risk Strategy.

Stage 1: Identify Natura and Ramsar Sites
Stage 2: Assess the likely impacts of the Flood Risk Management Strategy
Stage 3: Identify Significant Environmental Effects

Stage 1 identified several designated sites relevant to the Habitats Directive. Three of these were screened out due to their distance from Borough and four were considered in more detail.

Stage 2 assessed the impact of the proposed objectives of the Flood Risk Management Strategy. The Objectives were of a generic nature encouraging the sharing of information to improve the management of flood risk within the Borough. One element of the strategy was considered to potentially have an effect. However the likelihood was that there would be no significantly negative effect on a European Site, either alone or in combination with other elements of the same plan, or on other plans or projects, because of the remote nature of the sites in relation to the Borough.

The Flood Risk Strategy contains recommendations to reduce the likelihood of adverse impacts and the Borough will work with other bodies to identify mutual beneficial schemes to improve the local environment.

As a consequence, this screening assessment has found that there is no need for a Habitat Regulations Appropriate Assessment.

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Forward Plan

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REASON FOR ITEM

The Committee is required by its terms of reference to consider the Forward Plan and comment as appropriate to the decision maker on key decisions that relate to services within its remit (before they are taken by Cabinet or Cabinet Member).

OPTIONS OPEN TO THE COMMITTEE

- To comment on items going to the Cabinet or Cabinet Members for decision.
- Or to note the items and decide not to comment.

INFORMATION

1. The Forward Plan for the following months has been published. Those items that are within this Committee's remit are shown on the attached version of the Forward Plan. The Committee may wish to consider and comment on these items.
2. Committee Members are requested to send in any questions they have regarding the attached Forward Plan or on any reports going to the next meeting of Cabinet, and to notify any officers that they would like to attend to give advice.

SUGGESTED COMMITTEE ACTIVITY

- To consider whether there are comments or suggestions that the Committee wishes to make that will aid Cabinet's decision making.

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Ref	Upcoming Decisions	Further details	Ward(s)	Final decision by Full Council	Cabinet Member(s) Responsible	Officer Contact for further information	Consultation on the decision	NEW ITEM	Public / Private Decision & reasons
	SI = Standard Item each month					Council Departments: RS = Residents Services		SC = Social Care	AD = Administration FD= Finance
Cabinet Member Decisions - March 2016									
94	**CCTV maintenance tender**	Cabinet Members will consider a tender for provision of maintenance to public space CCTV.	Various		Cllr Ray Puddifoot MBE / Cllr Douglas Mills	RS - Nigel Dicker			Private (3)
91	**Tender: Hay Cutting and Hedge Trimming**	Cabinet approval will be sought to award a contract to carry out Hay Cutting and Baling including Hedge Trimming within Borough.	Various		Cllr Ray Puddifoot MBE / Cllr Jonathan Bianco	RS - Adrian Batten			Private (3)
Cabinet - 21 April 2016									
114	**Grant of a long lease for garden, Cowley**	This matter seeks Cabinet approval to grant a long lease of the garden forming part of a freehold premises in Cowley, following consideration by Strategic Property Governance Group	Brunel		Cllr Jonathan Bianco	RS - Susan Williams-Joseph		NEW	Private (1,2,3)
109	**Barnhill Estate, Hayes - Roof refurbishment**	Cabinet will consider appointing a contractor to address the maintenance issues for roofing, guttering and roof insulation on the Estate. This will reduce the ongoing responsive repair expenditure, improve the thermal performance reducing heating costs and ensure the properties are maintained in a suitable condition.	Barnhill		Cllr Jonathan Bianco	RS - Chris Woods	Residents / Tenants	NEW	Private (3)
Cabinet Member Decisions - April 2016									
110	**Contractors for Supported Housing Developments**	Delegated approval by Cabinet has been granted to Members to appoint Design and Build Contractors for the new Parkview and Grassy Meadow Extra Care Housing developments.	Townfield / Yiewsley		Cllr Ray Puddifoot MBE & Cllr Jonathan Bianco	RS - Jenny Evans	Public consultation	NEW	Private (3)
Cabinet - 19 May 2016									
95	**Environmental Enforcement Service**	Cabinet will consider a tender for the provision of an Environmental Enforcement Service.	All		Cllr Jonathan Bianco	RS - Bill Hickson	Partners		Private (3)
SI	**Reports from Policy Overview & Scrutiny Committees**	Major Policy Review recommendations for consideration by the Cabinet as and when completed.	TBC		TBC	AD - Democratic Services			Public

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Work Programme 2015/16

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REASON FOR ITEM

This report is to enable the Committee to review meeting dates and forward plans. This is a standard item at the end of each agenda.

MEETINGS

25 Jun 2015 **Venue: CR4**	Major Review 1 – discuss potential review topics for first major review Update on implementation of recommendations from past reviews 'Beds in Sheds' – Enforcement and Impact Trading Standards Update Work Programme – review the annual work programme Cabinet Forward Plan – review forthcoming decisions
29 Jul 2015 **Venue: CR5**	Major Review 1 and Review 2 – consideration of scoping report Consideration of Budget Planning Report for Residents Services 2015/16 Work Programme – review the annual work programme Cabinet Forward Plan – review forthcoming decisions
23 Sep 2015 **Venue: CR5**	Major Review 1 – First witness session Work Programme – review the annual work programme Cabinet Forward Plan – review forthcoming decisions
15 Oct 2015 **Venue: CR6**	Major Review 1 – Second witness session Licensing Policies Consultation Work Programme – review the annual work programme Cabinet Forward Plan – review forthcoming decisions
12 Nov 2015 **Venue: CR3a**	Major Review 1 - consideration of draft final report on Hoarding Major Review 2 - Mechanisms for Reviewing Major Developments in the Borough and Identifying Lessons to be Learned for the Planning Process - First Witness Session Briefing on West London Coronial Service Work Programme – review the annual work programme Cabinet Forward Plan – review forthcoming decisions
19 Jan 2016 **Venue: CR5**	Major Review 2 - Second Witness Session Budget Report for consideration Briefing on Local Plan Part 2 Work Programme – review the annual work programme Cabinet Forward Plan – review forthcoming decisions
24 Feb 2016	Review 2 - consideration of draft recommendations of the reivew Annual Safety at Sports Grounds Report **DEFERRED**

Venue: CR4+4a	Work Programme – review the annual work programme
	Cabinet Forward Plan – review forthcoming decisions

23 Mar 2016	**Update on the Council's and other bodies' responses to flooding in the Borough**
	Work Programme – review the annual work programme
Venue: CR5	**Cabinet Forward Plan – review forthcoming decisions**

27 Apr 2016	Consideration of topics for major reviews for the next Municipal Year
	Update on implementation of recommendations from past reviews
Venue: CR5	Work Programme – review the annual work programme
	Cabinet Forward Plan – review forthcoming decisions

OPTIONS OPEN TO THE COMMITTEE

1. To note dates for meetings
2. To make suggestions for future working practices, reviews, and updates.