Local Flood Risk Management Strategy Habitat Regulations screening for Appropriate Assessment

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HILLINGDON
LONDON

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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.

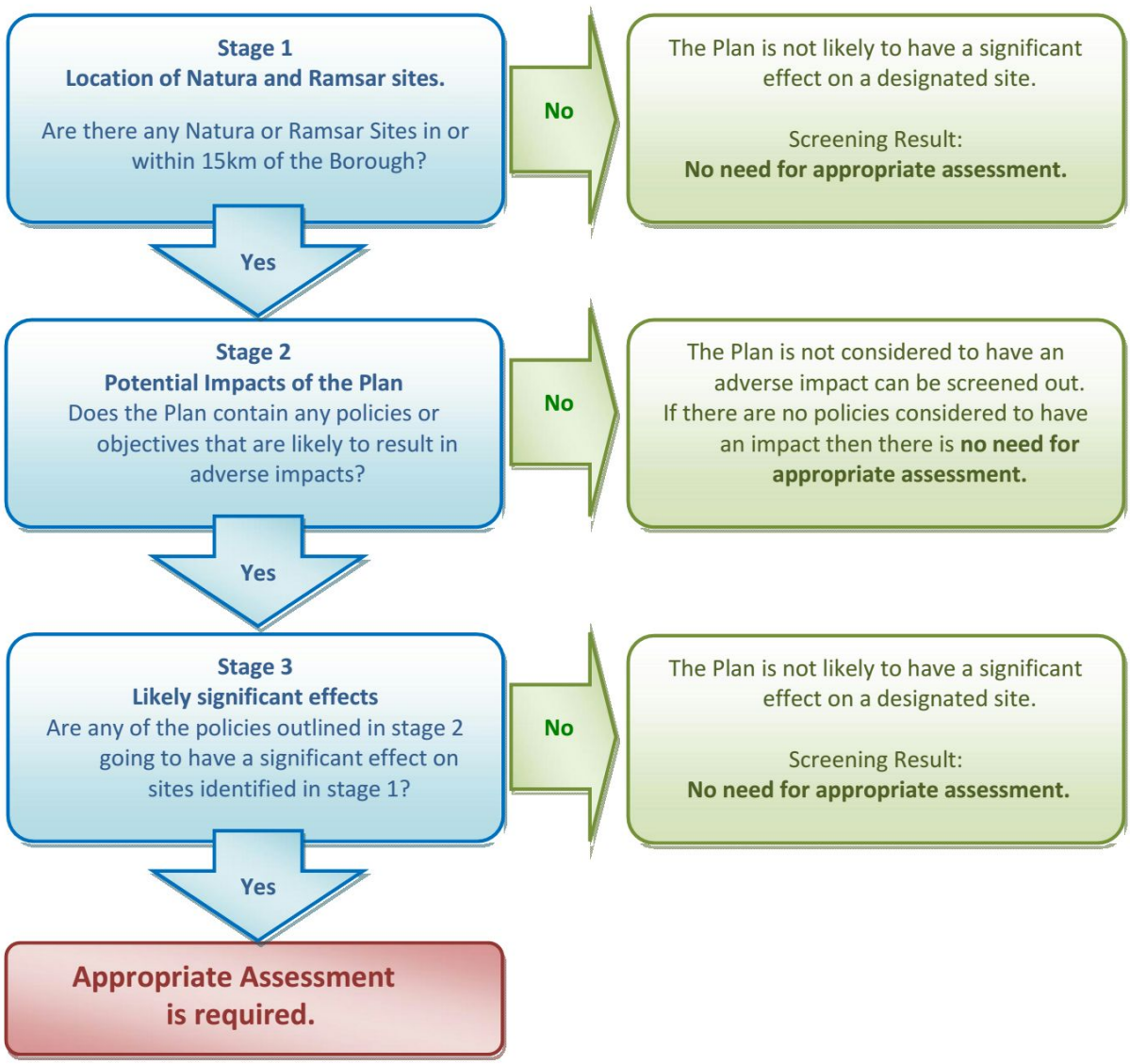


Figure 1 *Stages of the HRA screening process*

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.

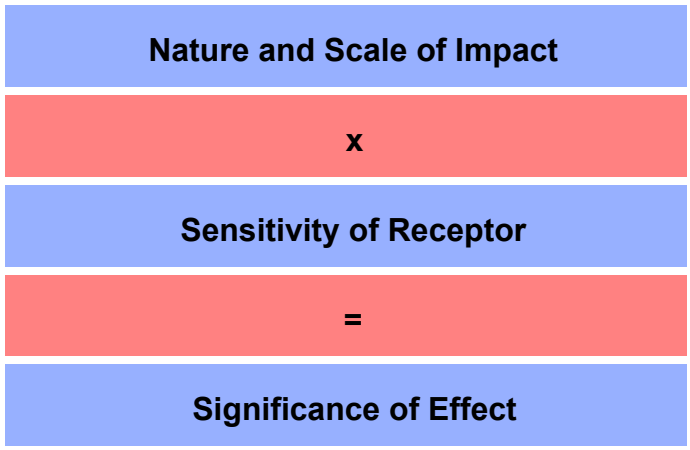
	Criteria for assessing effects
No Negative Effect *Reason why policy or allocation will have no negative effect*	
A1	Options / policies that will not themselves lead to development e.g. because they relate to design or other qualitative criteria for development, or they are not land use planning policies
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.