

London Borough of  
**Redbridge**



# Local Flood Risk Management Strategy

Habitats Regulations Assessment

2024 -2030

# Executive summary

The purpose of a Habitats Regulations Assessment (HRA) is to identify whether a plan or proposal will have any adverse impacts on designated European sites. These, also known as Natura 2000 sites, comprise Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Ramsar sites. A HRA is composed of three tasks of which this Screening Report makes up the first. This Screening Report has been carried out to assess if the objectives of the Redbridge Local Flood Risk Management Strategy (LFRMS) or actions presented in the associated Action Plan are likely to have an impact on any European sites.

The screening identified that Epping Forest, a designated SAC, falls partially within the administrative boundary of the London Borough of Redbridge. Two further sites were identified as having the potential to be affected by Redbridge LFRMS and the Action Plan and were therefore included within the assessment: Lee Valley (SPA and Ramsar site) and Thames Estuary & Marshes (SPA and Ramsar site).

Each of the objectives of the LFRMS have been assessed against each of the identified sites to determine if there would be any potential negative impacts on the sites with the implementation of the plan. As a result of the assessment, it was concluded that the delivery of the LFRMS and the associated action plan is unlikely to cause any adverse impacts to the Natura 2000 sites identified. As the strategic objectives of the LFRMS and actions seek to enhance and conserve natural environments, it is expected that their implementation will deliver benefits to these sites.

As all three sites assessed within this Screening Report were found to likely suffer no adverse effects it was concluded that progression of the HRA process to the Appropriate Assessment stage was not necessary.

# Contents

Executive summary

Contents

Figures and tables

Acronyms and abbreviations

1.	Introduction .....	1
1.1	Purpose of screening .....	1
1.2	Methodology.....	1
1.3	Local Flood Risk Management Strategy.....	2
1.4	HRA consultation questions.....	2
1.5	Consultation process.....	3
2.	Site information .....	4
2.1	Introduction to the sites .....	4
2.2	Sites within the Redbridge borough boundary .....	6
2.2.1	Site 1 – Epping Forest.....	6
2.3	Sites in proximity to the Redbridge borough boundary .....	7
2.3.1	Site 2 - Lee Valley .....	7
2.3.2	Site 3 - Thames Estuary and Marshes .....	8
2.4	Identifying relevant sites consultation questions.....	9
3.	Screening analysis .....	10
3.1	Screening analysis summary .....	10
3.2	Screening analysis .....	10
3.3	Screening analysis consultation questions .....	12
4.	Conclusions and next steps.....	13
4.1	How to reduce flood risk.....	13
4.2	Consultation of the HRA.....	13
4.3	Conclusions consultation questions.....	13

## Figures and tables

Figure 2-1 Location of Natura 2000 sites assessed in Screening Report .....	5
Figure 3-1 Explanation of screening results .....	11
Table 2-1 Epping Forest SAC information .....	6
Table 2-2 Lee Valley SPA & Ramsar site information.....	7
Table 2-3 Thames Estuary and Marshes SPA & Ramsar site information.....	8
Table 3-1 Screening analysis results of HRA sites against LFRMS Strategic Objectives.....	10
Table 3-2 Screening analysis criteria.....	10

## Acronyms and abbreviations

Abbreviation	Definition
DEFRA	Department for Environment, Food and Rural Affairs
FWMA	Flood and Water Management Act
HRA	Habitats Regulations Assessment
JNCC	Joint Nature Conservation Committee
LFRMS	Local Flood Risk Management Strategy
LLFA	Lead Local Flood Authority
Ramsar	Ramsar sites are wetlands of international importance designated under the Ramsar Convention (1975)
Redbridge	The London Borough of Redbridge
Redbridge Council	Redbridge London Borough Council
SAC	Special Area of Conservation
SEA	Strategic Environmental Assessment
SPA	Special Protection Area

# 1. Introduction

## 1.1 Purpose of screening

This Habitats Regulations Assessment (HRA) serves to assess the risks posed by the strategic objectives and actions of the Local Flood Risk Management Strategy (LFRMS) for Redbridge to Natura 2000 sites. The aim of the screening stage, addressed in this report, is to gather evidence of any potential harmful effects to the identified relevant protected sites which would require progression of the HRA to the appropriate assessment stage.

A HRA is required under the [Conservation of Habitats and Species Regulations \(2019\)](#) as amended, known as the Habitats Regulations. The competent authority producing a plan or proposal is obliged to carry out an HRA to determine whether any elements of the plan or proposal are likely to negatively affect protected sites. A LFRMS is considered a plan and thus requires an HRA. European sites, also known as Natura 2000 sites, are protected areas under the Habitats Regulations and include Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Ramsar designated sites. Any active or proposed SACs, SPAs, Ramsar sites, and any sites compensating for damage to an existing European site, must also be considered in an HRA.

## 1.2 Methodology

There are three stages to a complete HRA:

- Task 1** Screening:  
To check if the strategy, plan or proposal is likely to have a significant effect on a European site's conservation objectives.
- Task 2** Appropriate Assessment:  
To assess the significant effects of the proposal in more detail and identify ways to avoid or minimise any effects.
- Task 3** Derogation:  
To consider if proposals that would have an adverse effect on a European site quality for exemption.

These stages are defined by guidance produced by the Department for Environment, Food and Rural Affairs (DEFRA), Natural England, and additional Welsh governing bodies.

This report will cover the Task 1 Screening stage to decide whether the strategic objectives of the LFRMS for Redbridge are likely to have significant harmful effects on protected sites. Progression of the HRA Task 2 and 3 is only required if any significant effects are identified in Task 1. This report, along with the Strategic Environmental Assessment (SEA) will be reviewed by Natural England (as the statutory consultee) during a consultation period. Feedback will then be reviewed and incorporated accordingly in the HRA and any of the other associated documents.

More information on Habitats Regulations Assessments can be found [here](#).

## 1.3 Local Flood Risk Management Strategy

The [Flood Water Management Act \(2010\) \(FWMA\)](#) establishes the Redbridge Council Flood Risk Team as a Lead Local Flood Authority (LLFA). As an LLFA, the Flood Risk Management Team are responsible for managing local flood risks within Redbridge. As part of its responsibilities under the FWMA the LLFA is required to produce and maintain a LFRMS, updated every 6 years or following major changes to overarching policy or legislation. The LFRMS outlines how the LLFA, and other Risk Management Authorities (RMAs) will manage flood risk in Redbridge, specifically the risks from surface water, groundwater and ordinary watercourses for which the LLFA is responsible. The LFRMS for Redbridge outlines the strategic objectives for managing flood risk from all sources which are as follows:

### Strategic Objective A

To improve knowledge and understanding of flood risk in Redbridge and wider catchments.

### Strategic Objective B

To deliver successful and targeted flood alleviation schemes which maximise wider social, economic and environmental benefits.

### Strategic Objective C

To develop knowledge and access to funding to improve the resilience of communities and future development.

### Strategic Objective D

To ensure development appropriately mitigates flood risk by prioritising the use of SuDS and by aiming to achieve greenfield runoff rates.

### Strategic Objective E

To support successful communication between stakeholders and the effective engagement of communities to enable improvements to flood risk management.

### Strategic Objective F

To address climate change impacts by improving sustainability and working towards carbon neutral targets.

The actions to achieve the strategic objectives are set out in the accompanying Action Plan.

## 1.4 HRA consultation questions

It is a requirement of the HRA screening process to consult statutory consultees and allow any other stakeholders or relevant parties to review the outcomes. To enable this a set of questions have been prepared that align with the sections of this screening report. Statutory consultees will be asked to respond to these questions prior to the public consultation phase of this document. A list of the consultation questions is included below for clarity.

### **Identifying relevant sites**

1. Do you feel we have included all of the most relevant Natura 2000 sites which may be significantly affected by the implementation of the Local Flood Risk Management Strategy? If not, please state any additional sites which you believe should be included.
2. Do you feel we have included all the relevant information for each of these sites?

### **Screening analysis**

3. Do you have any comments on the method for the assessment of the HRA sites against the Local Flood Risk Management Strategy strategic objectives?
4. Do you agree with the screening analysis for each of the objectives? If not, please give reasons as to why you would screen a certain objective differently.

### **Conclusions and further comments**

5. Do you have any comments on the conclusions that we have made in this HRA Screening Report of the Local Flood Risk Management Strategy?
6. Do you have any additional comments or suggestions for this HRA Screening Report?

## **1.5 Consultation process**

The HRA screening report will go through a consultation process with the statutory consultee Natural England. The questions set out in *Section 1.4* will be asked to the statutory consultee and where feedback is received appropriate changes will be made to the HRA. A public consultation will then be held and feedback from this further incorporated into the final published HRA and LFRMS.

## 2. Site information

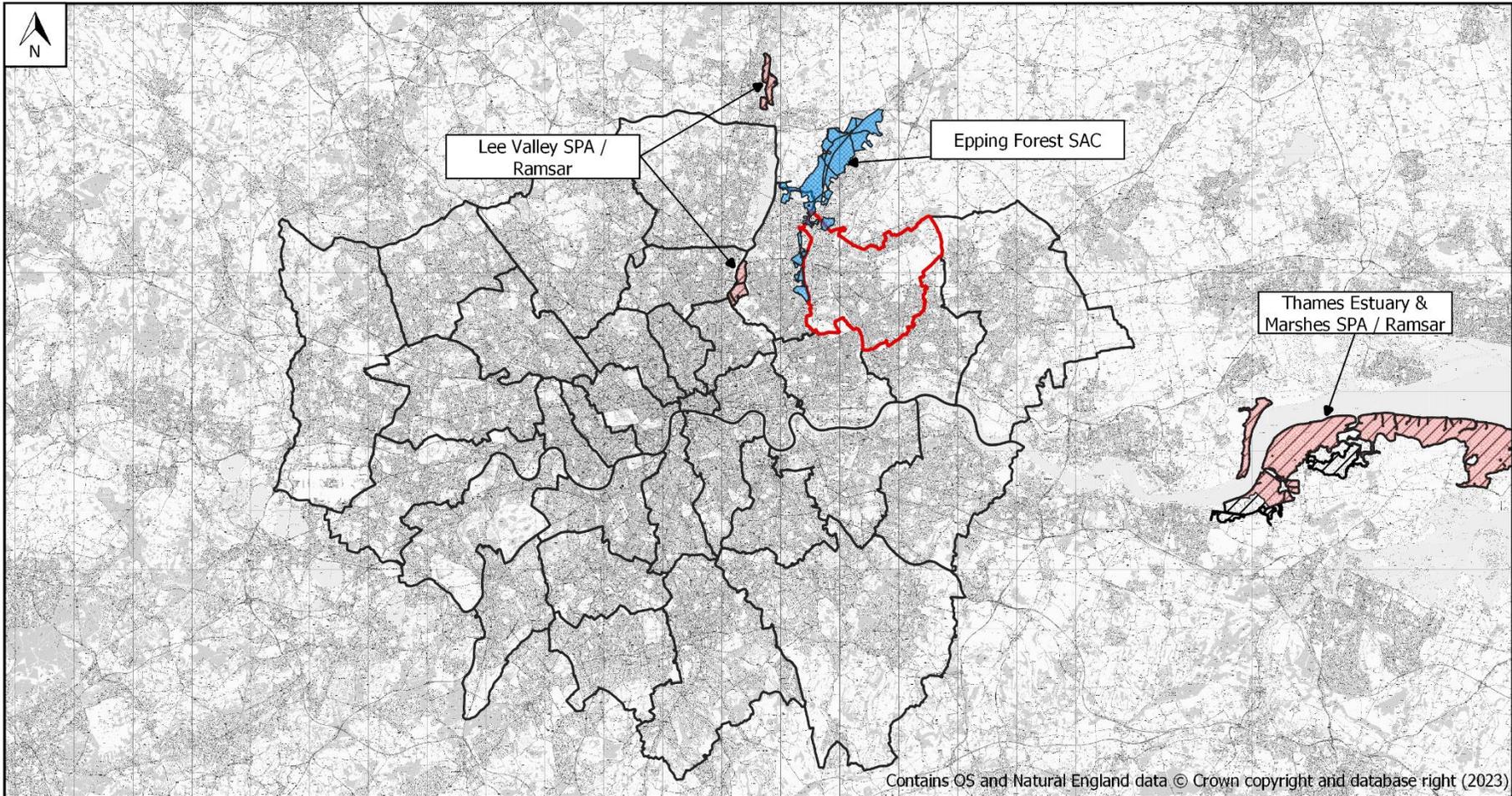
### 2.1 Introduction to the sites

The initial step of the HRA screening process is identifying which protected sites should be considered in the assessment. There is only one European site within the Redbridge borough boundary, Epping Forest, which is designated a SAC. Protected sites which fall outside the administrative boundary of the borough may still be affected by the LFRMS due to the nature and spatial dispersion of hydrological flows. For this reason, Lee Valley SPA and Thames Estuary and Marshes SPA have both been included in the HRA screening assessment as these are considered sites hydrologically linked to Redbridge. A map of the sites included in this screening assessment can be seen in *Figure 2-1*. A more extensive map of all of the designated sites in Great Britain can be viewed on [DEFRA's Magic Map tool](#).

Information regarding the sites has been collated from the following sources:

[Natural England](#)

[Joint Nature Conservation Committee \(JNCC\)](#)



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<p><b>Legend</b></p> <ul style="list-style-type: none"> <li><span style="border: 1px solid red; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> Redbridge Borough Boundary</li> <li><span style="border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> London Borough Boundaries</li> </ul> <p><b>Natura 2000 Sites</b></p> <ul style="list-style-type: none"> <li><span style="background-color: lightblue; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> Special Area of Conservation (SAC)</li> <li><span style="background-color: pink; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> Special Protection Area (SPA)</li> <li><span style="background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px); border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> Ramsar Site</li> </ul>	 <a href="http://metisconsultants.co.uk">metisconsultants.co.uk</a>	<p>Habitats Regulations Assessment Screening Report</p>		<p>This document has been prepared pursuant to and subject to the terms of Metis' appointment by its client. Metis accepts no liability for any use of this document other than by its original client or following Metis' express agreement to such use, and only for the purpose for which it was prepared and provided.</p>	
	<p>Location of Natura 2000 Sites</p>		<p>Figure 2-1</p>		
	<p>London Borough of <b>Redbridge</b></p> 		<p>Page Size: A4</p>		<p>1:350,000</p>

Figure 2-1 Location of Natura 2000 sites assessed in Screening Report

## 2.2 Sites within the Redbridge borough boundary

There is one designated European Site that falls partially within the borough boundary of Redbridge which is the Epping Forest SAC. The Epping Forest SAC extends from north to south, and the parts of the SAC incorporated within the Redbridge borough boundary are the southern edges, but for the purposes of this assessment the whole SAC will be considered.

### 2.2.1 Site 1 – Epping Forest

Epping Forest is a large ancient wood-pasture to the north-west of the Redbridge, of which 1630 ha are designated as an SAC. The site is primarily deciduous woodland with some areas of ancient semi-natural woodland of high nature conservation value. The site also comprises old grassland plains, wet and dry heathland and scattered wetland. *Table 2-1* presents the information about Site 1 covering the qualifying habitats and species, along with the pressures and threats facing them.

*Table 2-1 Epping Forest SAC information*

<b>Site name</b>	Epping Forest
<b>Site designation</b>	SAC
<b>EU code</b>	UK0012720
<b>Area (ha)</b>	1630.74
<b>Qualifying species and/or habitat features</b>	<ul style="list-style-type: none"> <li>• Atlantic acidophilus beech forests with <i>Ilex</i> and sometimes <i>Taxus</i> in shrublayer, <i>Quercion robori-petraeae</i> or <i>Ilici-Fagenion</i> – 9120 (primary reason)</li> <li>• Northern Atlantic wet heaths with <i>Erica tetralix</i> – 4010</li> <li>• European dry heaths – 4030</li> <li>• Stag beetle, <i>Lucanus cervus</i> – 1083 (primary reason)</li> </ul>
<b>General site character (% area)</b>	<ul style="list-style-type: none"> <li>• Broad-leaved deciduous woodland: 70%</li> <li>• Dry grassland, steppes: 20%</li> <li>• Inland water bodies (standing water, running water): 6%</li> <li>• Heath, scrub, maquis and garrigue, <i>phygrana</i>: 3.8%</li> <li>• Bogs, marshes, water fringed vegetation, fens: 0.2%</li> </ul>
<b>Current condition and threats</b>	<ul style="list-style-type: none"> <li>• Human induced changes in hydraulic conditions</li> <li>• Grazing</li> <li>• Outdoor sports and leisure activities, recreational activities</li> <li>• Air pollution, airborne pollutants</li> <li>• Changes in biotic conditions</li> </ul>
<b>Supplementary evidence</b>	<a href="#">Standard Data Form – UK0012720</a>

## 2.3 Sites in proximity to the Redbridge borough boundary

Sites that lie outside of Redbridge borough’s administrative boundary may still be affected and therefore need to be included within the HRA. Designated European sites that have the potential to be ecologically or hydrologically connected to areas of Redbridge borough were identified as Lee Valley and Thames Estuary and Marshes.

### 2.3.1 Site 2 - Lee Valley

The Lee Valley is found to the west and north of Redbridge, a 24 km stretch of the River Lee stretching from Finsbury Park to Ware. The site has a mix of semi-natural and man-made wetland and valley bottom habitats which are nationally and internationally important as a habitat for a number of species of birds. *Table 2-2* presents the information about Site 2 covering the qualifying habitats and species, along with the pressures and threats facing them

*Table 2-2 Lee Valley SPA & Ramsar site information*

<b>Site name</b>	Lee Valley
<b>Site designation</b>	SPA and Ramsar
<b>EU code</b>	UK9012111
<b>Area (ha)</b>	447.87
<b>Qualifying species and/or habitat features</b>	<p>SPA</p> <ul style="list-style-type: none"> <li>• Great Bittern, <i>Botaurus stellaris</i> – A021</li> <li>• Gadwall, <i>Anas strepera</i> - A051</li> <li>• Northern shoveler, <i>Anas clypeata</i> - A056</li> </ul> <p>Ramsar</p> <ul style="list-style-type: none"> <li>• Gadwall, <i>Anas strepera</i></li> <li>• Shoveler, <i>Anas clypeata</i></li> </ul>
<b>General site character (% area)</b>	<ul style="list-style-type: none"> <li>• Inland water bodies: 67%</li> <li>• Improved grassland: 10%</li> <li>• Broadleaved deciduous woodland: 10%</li> <li>• Humid grassland: 8%</li> <li>• Towns/ villages: 1%</li> </ul>
<b>Current condition and threats</b>	<ul style="list-style-type: none"> <li>• Human induced changes in hydraulic conditions</li> <li>• Pollution to ground water (point and diffuse sources)</li> <li>• Outdoor sports and leisure activities, recreational activities</li> <li>• Biocenotic evolution, succession</li> <li>• Marine and freshwater aquaculture</li> </ul>
<b>Supplementary evidence</b>	<a href="#">Standard Data Form – UK9012111</a>

### 2.3.2 Site 3 - Thames Estuary and Marshes

The Thames Estuary and Marshes designated site is located at the mouth of the River Thames, downstream from Central London and south-west of Redbridge. As a site it is composed of a mix of marsh ditches with brackish water, saltwater lagoons, saltmarshes and mudflats. This varying habitat supports important numbers of migratory birds over winter and the diverse wetland plants and invertebrates are of international importance. *Table 2-3* presents the information about Site 3 covering the qualifying habitats and species, along with the pressures and threats facing them

*Table 2-3 Thames Estuary and Marshes SPA & Ramsar site information*

<b>Site name</b>	Thames Estuary and Marshes
<b>Site designation</b>	SPA and Ramsar
<b>EU code</b>	UK9012021
<b>Area (ha)</b>	4802.47
<b>Qualifying species and/or habitat features</b>	<p>SPA</p> <ul style="list-style-type: none"> <li>• Dunlin, <i>Calidris alpina alpina</i> – A672</li> <li>• Knot, <i>Calidris canutus</i> – A143</li> <li>• Ringed plover, <i>Charadrius hiaticula</i> – A137</li> <li>• Hen harrier, <i>Circus cyaneus</i>, A082</li> <li>• Black-tailed godwit, <i>Limosa limosa islandica</i> – A616</li> <li>• Grey plover, <i>Pluvialis squatarola</i> – A141</li> <li>• Avocet, <i>Recurvirostra avosetta</i> – A132</li> <li>• Redshank, <i>Tringa tetanus</i> – A162</li> </ul> <p>Ramsar</p> <ul style="list-style-type: none"> <li>• Ringed plover, <i>Charadrius hiaticula</i> – A137</li> <li>• Black-tailed godwit, <i>Limosa limosa islandica</i> – A616</li> </ul>
<b>General site character (% area)</b>	<ul style="list-style-type: none"> <li>• Tidal rivers, estuaries, mud flats, sand flats, lagoons: 57.3%</li> <li>• Humid grassland: 29.1%</li> <li>• Inland water bodies: 5.6%</li> <li>• Bogs, marshes, water-fringed vegetation, fens: 3.7%</li> <li>• Dry grassland, steppes: 1.9%</li> <li>• Salt marshes, salt pastures, salt steppes: 1.5%</li> <li>• Shingle, sea cliffs, islets: 0.9%</li> </ul>

#### Current condition and threats

- Invasive non-native species
- Outdoor sports and leisure activities
- Changes in biotic conditions
- Changes in abiotic conditions

#### Supplementary evidence

[Standard Data Form – UK9012021](#)  
[European Site Conservation Objectives for Thames Estuary and Marshes SPA – UK9012021](#)

## 2.4 Identifying relevant sites consultation questions

1. Do you feel we have included all of the most relevant Natura 2000 sites which may be significantly affected by the implementation of the Local Flood Risk Management Strategy? If not, please state any additional sites which you believe should be included.
2. Do you feel we have included all the relevant information for each of these sites?

## 3. Screening analysis

### 3.1 Screening analysis summary

The screening stage of the HRA assesses the effect of the proposed strategic objectives of the Redbridge LFRMS on each of the identified sites. It is determined whether there will be no negative effect, a potential negative effect, or a potentially significant negative effect on Epping Forest, Lee Valley, or Thames Estuary & Marshes.

### 3.2 Screening analysis

Table 3-1 presents the results of the analysis of the potential impact of the LFRMS strategic objectives against the identified HRA sites using the scoring criteria set out in Table 3-2. The results of the analysis were that no detrimental effects are expected to be posed to the sites as a result of the delivery of the LFRMS, and evidence and justification is provided in Figure 3-1.

Table 3-1 Screening analysis results of the LFRMS strategic objectives against HRA sites

		HRA Site Number		
		1	2	3
LFRMS Strategic Objective	A	0	0	0
	B	0	0	0
	C	0	0	0
	D	0	0	0
	E	0	0	0
	F	0	0	0

Table 3-2 Screening analysis criteria

0	The strategic objective will have no effect on a Natura 2000 site.
-	The strategic objective could have a potential negative effect on a Natura 2000 site.
--	The strategic objective could have a potential significant negative effect on a Natura 2000 site.
?	Uncertain

<p><b>LFRRMS strategic objective A</b></p> <p><i>To improve knowledge and understanding of flood risk in Redbridge and wider catchments.</i></p> <p><u>Outcome: No negative effect</u></p> <p>Reasons for this are as follows:</p> <ul style="list-style-type: none"> <li>• Improved knowledge of flood risk in the area will enable better management of flooding reducing potential negative impacts of flooding to these sites.</li> <li>• Overall better management of floods in Redbridge will reduce secondary and knock-on effects of both floods and required management techniques.<sup>6</sup></li> </ul>	<p><b>LFRRMS strategic objective B</b></p> <p><i>To deliver successful and targeted flood alleviation schemes which maximise wider social, economic and environmental benefits.</i></p> <p><u>Outcome: No negative effect</u></p> <p>Reasons for this are as follows:</p> <ul style="list-style-type: none"> <li>• Flood alleviation schemes that prioritise environmental benefits have the potential to create improvements for the natural environment.</li> <li>• Targeted, successful schemes should reduce secondary impacts of flooding in the Redbridge borough to these sites and reduce the need for further future schemes posing a threat.</li> </ul>
<p><b>LFRRMS strategic objective C</b></p> <p><i>To develop knowledge and access to funding to improve the resilience of communities and future development.</i></p> <p><u>Outcome: No negative effect</u></p> <p>Reasons for this are as follows:</p> <ul style="list-style-type: none"> <li>• Access to funding for community resilience projects has the potential to be used in part for environmental protection and improvements.</li> </ul>	<p><b>LFRRMS strategic objective D</b></p> <p><i>To ensure development appropriately mitigates flood risk by prioritising the use of SuDS and aiming to achieve greenfield runoff rates.</i></p> <p><u>Outcome: No negative effect</u></p> <p>Reasons for this are as follows:</p> <ul style="list-style-type: none"> <li>• Prioritisation of sustainable management of flood waters reduces reliance on more environmentally invasive techniques causing disturbance.</li> <li>• Prioritisation of greenfield runoff rates should increase awareness of need to be mirroring natural conditions.</li> </ul>
<p><b>LFRRMS strategic objective E</b></p> <p><i>To support successful communication between stakeholders and the effective engagement of communities to enable improvements to flood risk management.</i></p> <p><u>Outcome: No negative effect</u></p> <p>Reasons for this are as follows:</p> <ul style="list-style-type: none"> <li>• Greater involvement and awareness within the community in flood prevention should encourage awareness of surrounding environment and need for better protection of these sites.</li> </ul>	<p><b>LFRRMS strategic objective F</b></p> <p><i>To address climate change impacts by improving sustainability and working towards carbon neutral targets.</i></p> <p><u>Outcome: No negative effect</u></p> <p>Reasons for this are as follows:</p> <ul style="list-style-type: none"> <li>• Reduced carbon emissions across the borough contributes to the protection of the environment for reduction of damage to these sites.</li> <li>• A focus on sustainability and carbon neutrality for works in the Redbridge borough should bring this focus to projects across a wider area.</li> </ul>

Figure 3-1 Screening analysis outcomes

### 3.3 Screening analysis consultation questions

3. Do you have any comments on the method for the assessment of the HRA sites against the Local Flood Risk Management Strategy strategic objectives?
4. Do you agree with the screening analysis for each of the objectives? If not, please give reasons as to why you would screen a certain objective differently?

## 4. Conclusions and next steps

### 4.1 How to reduce flood risk

This HRA screening assessment found three protected European sites that had the potential to be affected by the implementation of the Redbridge LFRMS and its Action Plan. The qualifying protected characteristics of the sites were assessed, along with their present condition and the current threats posed. The potential amplification of these threats by the strategic objectives were analysed and it has been concluded that the LFRMS is unlikely to pose any negative threats to the protected sites.

The aims of the LFRMS strategic objectives align with the protection and enhancement of natural environments, such as the identified protected sites, due to the focus placed on ecological and social benefits of future flood mitigation techniques and developments. Improved integration of protection and conservation of the environment into targets, along with community collaboration and a drive for sustainability in development could all offer benefits to the Natura 2000 sites.

As the LFRMS and Action Plan are unlikely to cause negative effects to protected sites, it is concluded that the HRA does not need to progress to further tasks and a full assessment is not required.

### 4.2 Consultation of the HRA

This HRA screening report will undergo a statutory consultation with Natural England. Responses from that consultation will be reviewed and incorporated into the HRA screening report. Following this, the report will move to public consultation when members of the public are able to provide their feedback. The final version of the HRA screening report will then be produced incorporating the views and information received.

### 4.3 Conclusions consultation questions

5. Do you have any comments on the conclusions that we have made in this HRA screening report of the Local Flood Risk Management Strategy?
6. Do you have any additional comments or suggestions for this HRA screening report?