



# Thames Flood Risk Management Plan

## Habitats Regulations Assessment

December 2022

We are the Environment Agency. We protect and improve the environment.

We help people and wildlife adapt to climate change and reduce its impacts, including flooding, drought, sea level rise and coastal erosion.

We improve the quality of our water, land and air by tackling pollution. We work with businesses to help them comply with environmental regulations. A healthy and diverse environment enhances people's lives and contributes to economic growth.

We can't do this alone. We work as part of the Defra group (Department for Environment, Food & Rural Affairs), with the rest of government, local councils, businesses, civil society groups and local communities to create a better place for people and wildlife.

Published by:

Environment Agency  
Horizon House, Deanery Road,  
Bristol BS1 5AH

[www.gov.uk/environment-agency](http://www.gov.uk/environment-agency)

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# 1. Non-Technical Summary

## Introduction

- 1.1 This is the Habitats Regulations Assessment (HRA) of the Thames River Basin District (RBD) Flood Risk Management Plan (FRMP). The HRA has been undertaken in accordance with The Conservation of Habitats and Species Regulations (The Habitat Regulations) 2017 (as amended) and considers the potential implications of the FRMP on designated European conservation sites. These sites contain species and habitats that are important at a European scale.
- 1.2 This report is the Habitats Regulations Assessment (HRA) of the Thames River Basin District (RBD) Flood Risk Management Plan (FRMP). The FRMP, covering the years between 2021 and 2027, seeks to manage significant flood-related issues in the Thames RBD, including 43 specifically identified Flood Risk Areas. It covers an area of 16,200km<sup>2</sup>. The FRMP seeks to reduce a range of flooding threats, including from rivers, the sea, surface water, groundwater and sewers / canals / reservoirs.
- 1.3 The need for protecting human receptors should be viewed in the context of the environmental challenges present in the Thames RBD. Many geographic areas in the RBD are experiencing growth and need to mitigate climate change. Therefore, many freshwater and coastal habitats in the RBD, important in sustaining wintering wildfowl, fish populations and terrestrial species (e.g. otters), are subject to a wide range of human impacts, such as recreational pressure, reduced water flow / level, declining water quality and coastal squeeze. This HRA assesses the potential for the Thames FRMP to result in Likely Significant Effects (LSEs) and, where applicable, adverse effects on the integrity of European sites (i.e. the ability of those sites to achieve their conservation objectives).

## Methodology

- 1.4 The Habitats Regulations 2017 (as amended) set out the specific assessment steps required for the HRA process.
- 1.5 The first step in the sequence of tests, often referred to as HRA screening, establishes whether a more detailed analysis known as Appropriate Assessment is required. The purpose of HRA screening is to determine, in view of the best available scientific knowledge, whether a plan or project, either alone or in-combination with other plans or projects, could result in LSEs on European sites in view of their Conservation Objectives. If the Competent Authority determines that no LSEs are present (both alone and in-combination), then no further assessment is necessary.

## Test of Likely Significant Effects

- 1.6 All measures included in the Thames RBD were assessed for LSEs on the European sites across and within 10km of the RBD.

- 1.7 None of the measures were identified to result in LSEs on any European site for a range of reasons, including that they are too non-specific to assess meaningfully, already being implemented (thus having undergone HRA previously), being subjected to a separate consenting process (as applies to Local Flood Risk Management Plans, Shoreline Management Plans (SMPs) and Coastal Strategies), desk-based and involving no physical activity on the ground, remote from vulnerable sites or worded such they are about 'investigating', 'reviewing' and 'identifying opportunities'.
- 1.8 One group of measures was found to commit to physical work on the ground by 'delivering' or 'implementing' flood management interventions, such as coastal defence structures or natural flood management approaches. The broad location of some measures, is known, enabling a broad assessment of their proximity to European sites and potential linking impact pathways. However, detailed HRA (including Appropriate Assessment) was deferred to either lower-tier plans or the planning application stage when details on the nature of proposals are available. This approach was adopted to account for the strategic (and thereby necessarily non-specific) nature of the FRMP, while also identifying the measures with the highest impact potential on European sites.
- 1.9 This document also identified that a range of measures in the Thames FRMP have the potential to improve the hydrological condition of European sites across the RBD, particularly in the Solent, where several specific measures are targeted towards developing sustainable solutions to flood risk management that also incorporates habitat creation and enhancement.

## Other Plans and Projects

- 1.10 The potential for the FRMP to result in LSEs on European sites in-combination with (i.e. when considered alongside) other plans and projects was also assessed. Many such plans are proposed across the RBD, which are associated with their own impact potential. For example, local authorities are proposing a minimum of 521,000 new dwellings within the timescales of their current Local Plans and Core Strategies. There is also a potential for cumulative impacts with Water Resource Management Plans and SMPs.
- 1.11 Potential in-combination LSEs with Local Plan development were excluded due to most measures not being negatively linked to European sites, the fact that some measures are only included for completeness being driven by entirely separate plan processes, and the strategic nature of the FRMP, meaning that those measures with potential interactions with European sites depend upon considerable further development before the presence of any impact pathways can be clearly identified.

## Conclusion

- 1.12 LSEs of the FRMP on all European sites, both alone and in-combination, were excluded for all measures and an Appropriate Assessment was not required. This was based on various factors, including some measures being carried over from the

cycle 1 FRMP (which would have been subject to the statutory consenting process, including HRA), already implemented, not associated with impact pathways linking to European sites or too non-specific (either in terms of specific location, their nature or both) to allow for a detailed, meaningful assessment.

- 1.13 Notably, 24 measures were screened out at the strategic FRMP level but recommended for down-the-line HRA since the measures are sufficiently broadly expressed that they could be delivered without adverse effects but this will need to be reassessed as actual schemes are developed. As the details of potential schemes are developed towards the planning application stage, the HRA process will ensure that adequate mitigation measures, where relevant, are incorporated and the integrity of European sites will be protected.

## 2. Introduction and Approach to Assessment

### Background and Description of the Thames River Basin District

- 2.1 The Thames River Basin District (RBD) covers over 16,200 km<sup>2</sup>. It encompasses all of Greater London and extends from north Oxfordshire down to the north of Hampshire, and from Gloucester in the west to the Thames Estuary and parts of Kent in the east. In total, over 15 million people live in the Thames RBD and many enter it daily to work or visit. In addition to Greater London, other urban centres in the RBD include Luton, Reading and Guildford.
- 2.2 Flooding can occur in the Thames RBD from rivers, the sea, surface water, groundwater, storm water drainage (including highways), sewer systems and the failure or overtopping of water control structures. These different types of flooding rarely happen in isolation.
- 2.3 Extensive, catchment-wide river flooding in the Thames RBD tends to happen when heavy and prolonged rainfall occurs, and the catchment is either frozen or saturated. This usually happens between the autumn and spring. Extensive flooding history can be found in the first cycle Flood Risk Management Plan (FRMP) (2015-2021). Extensive flooding history can be found in the first cycle Flood Risk Management Plan (FRMP) (2015-2021). This includes details of the 2013/2014 prolonged and widespread flooding along the whole River Thames catchment. It also includes several smaller but devastating flood events that took place across the RBD because of sudden and exceptionally high or prolonged rainfall on often saturated grounds.
- 2.4 The Thames RBD has a rich diversity of wildlife and habitats. It supports many species of global and national importance, from chalk streams such as the River Kennet to the Thames Estuary and salt marshes. The management catchments that make up the RBD include many interconnected rivers, lakes, groundwater, estuarine and coastal waters. These catchments range from chalk streams and aquifers to tidal and coastal marshes. The River Basin District is mostly rural to the west and urban to the east where it is dominated by Greater London. About 17% of the RBD is urbanised and the rural land is mainly arable, grassland and woodland.

- 2.5 The Thames RBD is in an area of significant water stress. Affinity Water, Anglian Water and Thames Water are all companies classified within “Serious” Water Stressed areas, using the ‘2013 Groundwater and rivers supply water for local people’ classification.
- 2.6 Our rivers, lakes, canals, coasts, and groundwater – and the essential services that they provide society – are worth billions of pounds to the UK economy. Our actions should thrive to protect and improve our waters and find a better balance that meets the needs of people and nature. Within the Thames RBD there are:
- 24 Flood Risk Areas (FRAs) for significant risk of flooding from main rivers and the sea
  - 17 FRAs for significant risk of flooding from surface water
  - Four Strategic Areas (SAs) as locally important areas
- 2.7 The Environment Agency leads development of the Flood Risk Management Plans (FRMP) for River Basin Districts in England and delivery of flood warning services. The draft second cycle FRMP is a plan to manage significant flood risks in designated flood risk areas (FRAs). The ambition is that the FRMP is a strategic, place-based plan which shows what is happening in flood risk management across the River Basin District. FRMPs focus on the more significant areas of flooding and describe the risk of flooding now and in the future. These plans will help:
- identify actions that will reduce the likelihood and consequences of flooding update plans to improve resilience whilst informing the delivery of existing flood programmes
  - work in partnership to explore wider resilience measures, including nature-based solutions for flood and water; and
  - set longer-term, adaptive approaches to help improve the nation’s resilience
- 2.8 This document forms the Habitats Regulations Assessment (HRA) for the Thames FRMP. This document considers the potential effects of the draft FRMP on Special Areas of Conservation (SAC), Special Protection Areas (SPA) and Ramsar sites, either alone or in combination with other plans or projects, and in view of best scientific knowledge.

## Legislative context

- 2.9 The National Site Network of Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) is protected via the Conservation of Habitats and Species Regulations 2017 (as amended, most recently in 2019 to reflect Brexit). These regulations also set out the process for assessing potential adverse effects on such sites, known as HRA. Paragraph 181 of the National Planning Policy Framework<sup>1</sup> clarifies that, in England, the HRA process is also applied to another category of internationally important wildlife site called Ramsar sites.
- 2.10 The legislative basis for HRA is set in the Conservation of Habitats and Species Regulations 2017 (as amended). This states that ‘A competent authority, before deciding to ... give any consent for a plan or project which is likely to have a significant effect on a European site ... shall make an appropriate assessment of the implications for the site in view of that sites conservation objectives... The authority shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the European site’.



2.11 The competent authority that carries out the HRA (in this case the Environment Agency) is required to apply the precautionary principle to European sites and can only adopt a plan once it has been ascertained that it will not adversely affect the integrity of the site concerned. However, even if significant adverse effects on the designated site are predicted, and in the absence of a suitable alternative solution, the plan can still be adopted in exceptional circumstances where there are deemed sufficient imperative reasons of over-riding public interest (IROPI). In such cases, however, compensatory measures must be implemented.

## Overview of HRA process

2.12 The Habitats Regulations do not prescribe a particular methodology for carrying out an appraisal of plans or projects. However, it does set out the specific assessment steps involved. In February 2021 the government provided broad guidance on the HRA process<sup>2</sup>. The most detailed guidance on the HRA process in the UK has been produced by Scottish Natural Heritage (now NatureScot). They outline a series of thirteen steps. However, with cognisance of recent case law (refer to Table 1) clarifying when mitigation can be taken into account in the HRA process, the process has been revised to constitute eleven stages (see Figure 1).

2.13 A four-stage methodology for HRA would therefore include:

- HRA Stage 1 – screening (including a ‘likely significant effect’ judgement)
- HRA Stage 2 – appropriate assessment
- HRA Stage 3 – assessment of alternative solutions
- HRA Stage 4 – assessment where no alternative solutions exist and where adverse effects remain (i.e. consideration of Imperative Reasons of Overriding Public Interest (IROPI)) and identification of compensatory measures

2.14 The first step in the sequence of tests is to establish whether an appropriate assessment is required. This is often referred to as HRA screening. The purpose of HRA screening is to determine, in view of best available scientific knowledge, whether a plan or project, either alone or in combination with other plans or projects, could have likely significant effects (LSE) on a European site, in view of that site’s conservation objectives.

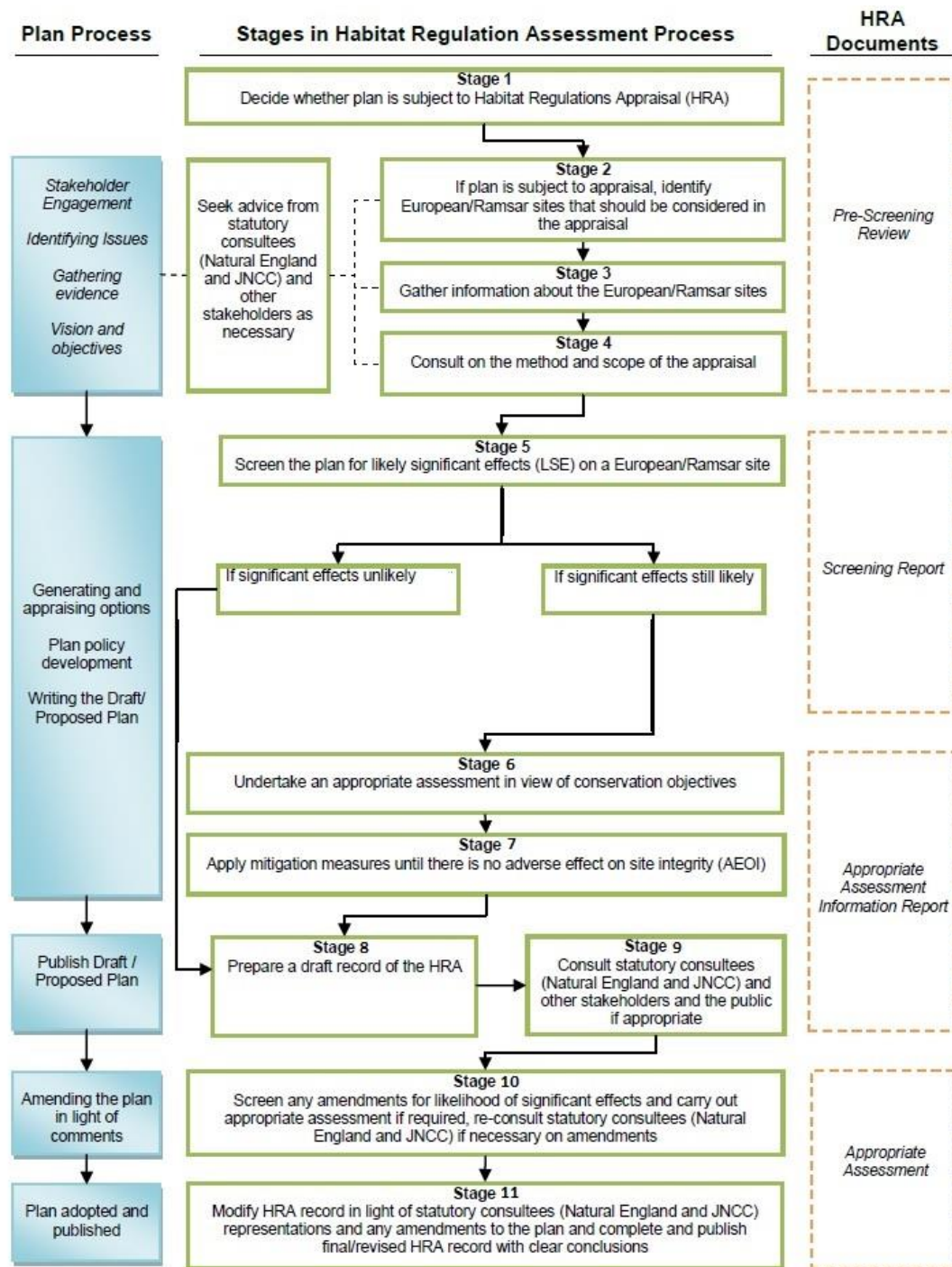
2.15 For this purpose, and as a result of case law ‘likely’ means ‘possible’, while a ‘significant’ effect is one which could undermine the Conservation Objectives of a European site. To this end the HRA process applies the ‘Precautionary Principle’<sup>3</sup> to European sites. If the competent authority determines that there are no LSE (including ‘in combination’ effects from other plans or projects), then no further assessment is necessary and the plan or project can, subject to any other issues, be taken forward. If, however, the competent authority determines that there are LSE, or if there is reasonable scientific doubt, then the next step in the process must be initiated and a detailed appropriate assessment undertaken. While a judgment over likely significant effects must be precautionary, the court in *R (Boggis) v Natural England* [2009] EWCA Civ 1061 also noted that there must be a ‘real’, rather than a hypothetical, risk to European sites.

2.16 This is relevant to the assessment of the FRMP measures; while many measures commit to the production, update and/or delivery of other plans (such as Water Level

Management Plans, WLMPs), or the assessment of options for, or a general commitment to, flood risk management assets in certain locations, the ability to identify 'real' rather than hypothetical impacts is constrained by the fact that considerable further work is needed at lower tiers to develop the plans or schemes in question before specific impact pathways can be identified with any confidence. For example, whether a given WLMP poses a likely significant effect on a given European site will depend entirely on the proposals it contains, which are not set by FRMP measures that commit to updating WLMPs. Similarly, the potential for likely significant effects to arise from 'implementing flood risk management improvements' will vary significantly depending on what is proposed and how it is to be delivered, which may not be determined at the FRMP level; a set-back flood embankment or a flood relief channel may have no implications for a given European site compared to sheet piling in the river.

- 2.17 The purpose of the appropriate assessment is to carry out sufficient scientific investigation to ascertain whether the plan or project, alone or in combination with other plans or projects, will not adversely affect the integrity of European sites, in view of their conservation objectives and considering any design modifications or mitigation (but not compensatory measures, which can only be considered in exceptional circumstances when requirements for the above HRA Stages 3 and 4 have been met).
- 2.18 Plans and projects can only be permitted having ascertained that there will be no adverse effect on the integrity of the European site(s) in question. Plans and projects with predicted adverse impacts on European sites may still be permitted if there are no alternatives to them and there are Imperative Reasons of Overriding Public Interest (IROPI) as to why they should go ahead. In such cases, compensation would be necessary to ensure the overall integrity of the site network. To ascertain whether or not site integrity will be affected, an Appropriate Assessment should be undertaken of the plan or project in question.
- 2.19 Over time the term HRA has come into wide currency to describe the overall process set out in the Regulations from screening through to IROPI. This has arisen in order to distinguish the process from the individual stage described in the law as an 'Appropriate Assessment'.
- 2.20 The HRA has been carried out being mindful of the implications of European case law in 2018, notably the Holohan ruling and the People over Wind ruling, both discussed below.

**Figure 1. Stages of the HRA process (adapted from SNH (2015))**



**Figure 1 accessible description**

Figure 1 shows the plan process, stages in Habitat Regulation Assessment process and HRA documents involved in the HRA process.

The first part of the plan process involves stakeholder engagement, identifying issues, gathering evidence and the vision and objectives. Advice may be needed from statutory consultees, such as Natural England and JNCC, and other stakeholders as necessary. The stages include:

1. Decide whether the plan is subject to Habitat Regulations Appraisal.

2. If the plan is subject to appraisal, identify European and Ramsar sites that should be considered in the appraisal.
3. Gather information about European sites and Ramsar sites.
4. Consult on the method and scope of the appraisal.

A pre-screening review document is needed for stages 1 to 4.

The second part of the plan process involves generating and appraising options, planning policy development and writing the draft/proposed plan. The stages include:

5. Screen the plan for likely significant effects (LSE) on a European or Ramsar site. If the significant effects are unlikely, then move on to stage 8. If significant effects are likely, then continue to stage 6.
6. Undertake an appropriate assessment in view of conservation objectives.
7. Apply mitigation measures until there is no adverse effect on site integrity (AEOI).

A screening report is needed for stage 5 and appropriate assessment information report is needed for stage 6 to 9.

The third part of the plan process involves publishing the draft or proposed plan. The stages include:

8. Prepare a draft record of the HRA.
9. Consult statutory consultees (Natural England and JNCC), other stakeholders and the public if appropriate.

The fourth part of the plan process involves amending the plan in light of comments. This includes stage 10:

10. Screen any amendments for likelihood of significant effects and carry out appropriate assessment if required, re-consult statutory consultees (Natural England and JNCC) if necessary, on amendments.

An appropriate assessment document is needed for stage 10 and 11 of the plan process.

In the fifth and final part of the process the plan is adopted and published. This includes stage 11:

11. Modify HRA record in light of statutory consultees (Natural England and JNCC) representations and any amendments to the plan and complete and publish final/revised HRA record with clear conclusions.

## Relevant case law

2.21 As a consequence of the UK's exit from the EU, it was necessary for various amendments to be made to the Habitats Regulations. These changes were required to ensure that England and Wales (and Scotland through separate regulations) continue to maintain the same standard of protection afforded to European sites. The Habitats Regulations remain in force, including the general provisions for the protection of European sites and the procedural requirements to undertake HRA. The

changes made were only those necessary to ensure that they remain operable following the UK's exit from the EU.

2.22 Although the UK is no longer part of the EU, a series of prior rulings of the Court of Justice of the European Union (CJEU) are relevant and have been considered when preparing this document. These rulings and their implications for this HRA are summarised in Table 1.

**Table 1. Case law relevant to the HRA of the FRMP**

Case	Ruling	Relevance to the HRA of the FRMP
People Over Wind and Sweetman v Coillte Teoranta (C-323/17)	The ruling of the CJEU in this case requires that any conclusion of 'no likely significant effect' on a European site must be made prior to any consideration of measures to avoid or reduce harm to the European site. The determination of likely significant effects should not, in the opinion of the CJEU, constitute an attempt at detailed technical analyses. This should be conducted as part of the appropriate assessment.	NatureScot has published guidance on the implications of this ruling for HRA (SNH, 2019). It will be necessary to distinguish between those measures which are intended to avoid or reduce harmful effects on a European site and those elements of the flood management plan that may incidentally provide some degree of mitigation, but which are intrinsic or essential parts of the plan itself. SNH advises that intrinsic parts of a plan can be considered at the screening stage of HRA. If it can be concluded that the Flood management plan area will have no adverse effect on any European site, in the absence of mitigation, it will be possible to conclude 'no likely significant effects', and the need for further detailed appropriate assessment will be 'screened out'.

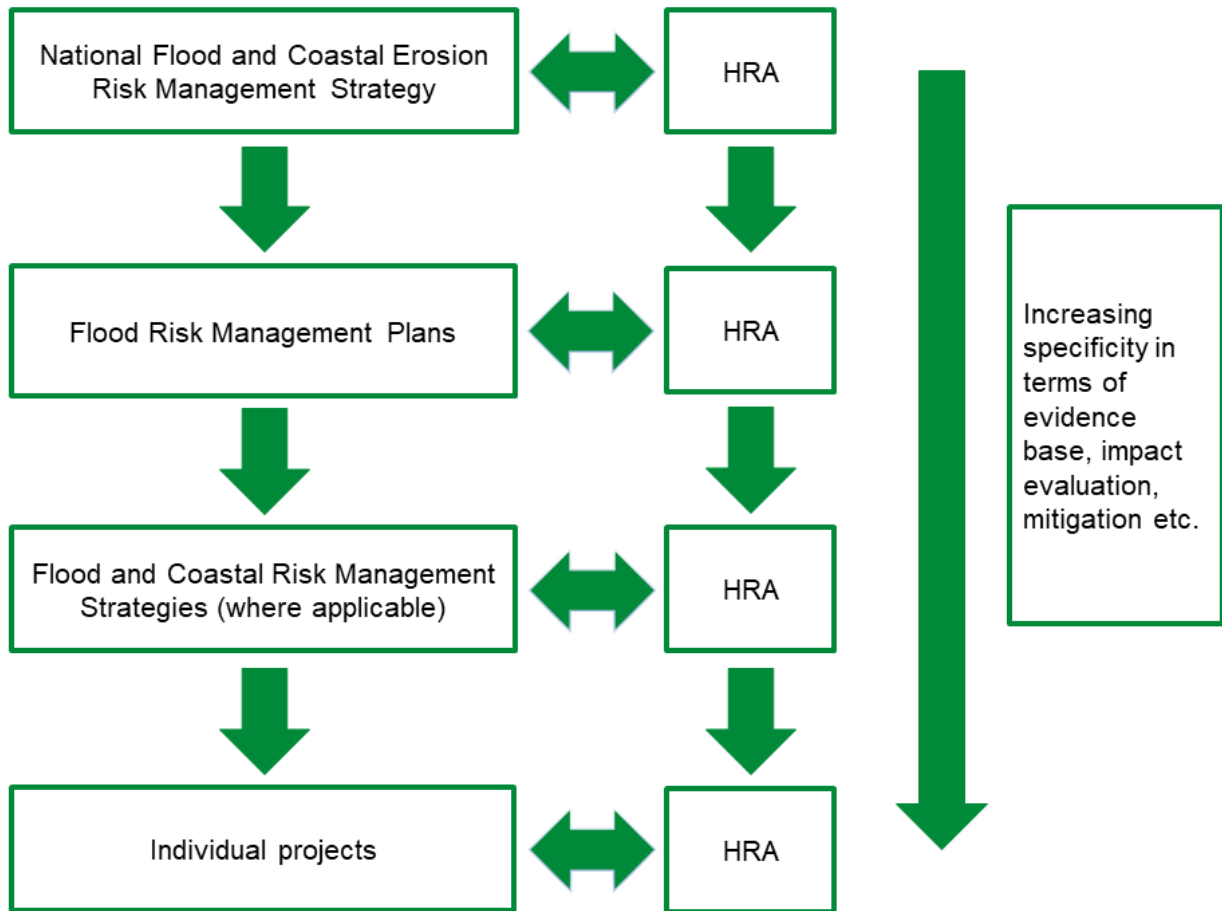
Case	Ruling	Relevance to the HRA of the FRMP
Waddenzee (C-127/02)	<p>The ruling in this case clarified that appropriate assessment must be conducted using best scientific knowledge, and that there must be no reasonable scientific doubt in the conclusions drawn.</p> <p>The Waddenzee ruling also provided clarity on the definition of ‘significant effect’, which would be any effect from a plan or project which is likely to undermine the conservation objectives of any European site.</p>	<p>Adopting the precautionary principle, a ‘likely’ effect in this HRA is interpreted as one which is ‘possible’ and cannot be objectively ruled out.</p> <p>The test of significance of effects has been conducted with reference to the conservation objectives of relevant European sites.</p>
Holohan and Others v An Bord Pleanála (C-461/17)	<p>The conclusions of the Court in this case were that consideration must be given during appropriate assessment to:</p> <ul style="list-style-type: none"> <li>• effects on qualifying habitats and/or species of a SAC or SPA, even when occurring outside of the boundary of a European site, if these are relevant to the site meeting its conservation objectives, and</li> <li>• effects on non-qualifying habitats and/or species on which the qualifying habitats and/or species depend and which could result in adverse effects on the integrity of the European site.</li> </ul>	<p>This relates to the concept of ‘functionally-linked habitat’, i.e. areas outside of the boundary of a European site which supports its qualifying feature(s). In addition, consideration must be given to non-qualifying features upon which qualifying habitats and/or species rely.</p>

Case	Ruling	Relevance to the HRA of the FRMP
T.C Briels and Others v Minister van Infrastructuur en Milieu (C-521/12)	The ruling of the CJEU in this case determined that compensatory measures cannot be used to support a conclusion of no adverse effect on site integrity.	Compensation can only be considered at the relevant stage of HRA and not during appropriate assessment. Compensation must be delivered when appropriate assessment concludes that there will be adverse effects on site integrity.

## Purpose of this document

- 2.23 This report forms the HRA of the Thames FRMP. It has been prepared with regard to best scientific knowledge and an examination of potential impacts of the Flood Risk Management Plan on European Sites.
- 2.24 Project-related HRA often requires bespoke survey work and novel data generation in order to accurately determine the significance of effects. In other words, to look beyond the risk of an effect to a justified prediction of the actual likely effect and to the development of avoidance or mitigation measures.
- 2.25 However, there is a tacit acceptance that HRA can be tiered and that all impacts are not necessarily appropriate for consideration to the same degree of detail at all tiers as illustrated in Figure 2 below. Note that some measures in the FRMPs come from other plans and are reflected in the FRMP for consistency and completeness.

**Figure 2. Tiering in HRA of Land Use Plans**



2.26 In any strategic plan, there are numerous measures for which there is a limit to the degree of assessment that is possible at this plan level. This is because either:

- the measure in question does not contain any specific details describing what will be delivered or where so literally cannot be assessed in detail at the plan level
- development of a specific type is identified but the nature of the potential impacts are dependent on exactly how the development will be designed and constructed and therefore cannot be assessed in detail at the plan level but rather at the scheme level

2.27 For example, NatureScot has published guidance<sup>4</sup> that indicates a measure or initiative in a higher tier plan can be screened out without further analysis if:

- a. they are intended to protect the natural environment
- b. they will not themselves lead to development or other change
- c. they make provision for change but could have no conceivable effect on a European site
- d. they make provision for change but could have no significant effect on a European site, or
- e. effects on any particular European site cannot be identified because the measures are too general or lack any spatial definition.



- 2.28 Similarly, the Habitats Regulations Assessment Handbook<sup>5</sup> sets out three criteria in section F.10.1.5, that it considers would make it reasonable to defer further assessment to a lower tier plan or project:
- a. the higher level plan assessment cannot reasonably predict any effect on a European site in a meaningful way
  - b. the lower level plan or project, which will identify more precisely the nature, timing, duration, scale or location of the measure, and thus its potential effects, will have the necessary flexibility over the exact nature, timing, duration, scale and location of the measure to enable an adverse effect on site integrity to be avoided
  - c. the HRA of the lower tier plan or project is required as a matter of law or government policy
- 2.29 In these cases, the HRA focusses on setting down-the-line requirements for more detailed assessment at the scheme level that can be included in the plan to ensure that whatever proposals come forward will not result in adverse effects on integrity. On these occasions the advice of Advocate-General Kokott<sup>6</sup> should be considered. She commented that: 'It would ...hardly be proper to require a greater level of detail in preceding plans [rather than planning applications] or the abolition of multi-stage planning and approval procedures so that the assessment of implications can be concentrated on one point in the procedure. Rather, adverse effects on areas of conservation must be assessed at every relevant stage of the procedure to the extent possible on the basis of the precision of the plan. This assessment is to be updated with increasing specificity in subsequent stages of the procedure'.
- 2.30 Similarly, published EU guidance on HRA states: 'Where one or more specific projects are included in a plan in a general way but not in terms of project details, the assessment made at plan level does not exempt the specific projects from the assessment requirements of Article 6(3) at a later stage, when much more details about them are known.'<sup>7</sup>
- 2.31 It is also important to consider the approach taken regarding coastal defence schemes and strategies. The stance throughout all FRMP HRAs is that, provided measures are already covered by the SMP/Coastal Strategy process or another HRA process, then these measures are effectively included in the FRMPs for completeness. The FRMPs are not the source plans for these schemes and they are already committed elsewhere. The SMP and Coastal Strategies will be updated as part of their normal cycle and that will include revision to their HRAs which will take account of any changes in evidence. Each scheme will also have its own HRA before it is consented. In these cases, the DTA handbook states that plan elements can be screened out if they have, or will be subject to, HRA under another plan and this plan (the FRMP) would not materially change if they were omitted.
- 2.32 This is the approach taken in the HRA of the FRMP to avoid confusing the FRMP with other plan processes (such as Shoreline Management Plan (SMP) and Coastal Strategy processes) that have their own separate HRA, or the individual schemes that are referenced in the FRMP and will be taken forward subject to significant further work including outline design, detailed design, securing of funding, community consultation and securing of necessary consents and permits. The fact that a scheme is referenced in the FRMP does not prejudge the down-the-line permitting processes.

## The 'in Combination' Scope

- 2.33 It is a requirement of the Habitats Regulations that the impacts and effects of any land use plan being assessed are not considered in isolation but in combination with other plans and projects that may also be affecting the European site(s) in question.
- 2.34 When undertaking this part of the assessment it is essential to bear in mind the principal intention behind the legislation, i.e. to ensure that those projects or plans which in themselves have minor impacts are not simply dismissed on that basis but are evaluated for any cumulative contribution they may make to an overall significant effect. In practice, in combination assessment is therefore of greatest relevance when the plan would otherwise be screened out because its individual contribution is inconsequential. The overall approach is to exclude the risk of there being unassessed likely significant effects in accordance with the precautionary principle. This was first established in the seminal Waddenzee<sup>8</sup> case.
- 2.35 For the purposes of this HRA, in-combination assessment is focussed on the plans and projects identified in the Strategic Environmental Assessment (SEA) Environmental Report of the FRMP. The plans and projects were identified in the SEA as having a significant interaction with the FRMP for biodiversity, flora and fauna and required consideration. The key relevant plans and projects with a potential for in-combination effects are:

### Draft Flood Risk Management Plans

- South East Draft FRMP 2021 to 2027
- South West Draft FRMP 2021 to 2027
- Severn Draft FRMP 2021 to 2027
- Anglia Draft FRMP 2021 to 2027

### Local Development Plan documents for the following Local Authorities

- Ashford Borough Council
- Epsom and Ewell Borough Council
- Aylesbury Vale District Council
- Gravesham Borough Council
- Surrey Heath Borough Council
- Basildon Council
- Guildford Borough Council
- Swale Borough Council
- Basingstoke and Deane Council
- Reading Borough Council
- Harlow Council
- Swindon Borough Council
- Bracknell Forest
- Hart District Council
- Tandridge District Council

- Bracknell Forest Borough Council
- Hertsmere Borough Council
- Three Rivers District Council
- Brentwood Borough Council
- Horsham District Council
- Thurrock Council
- Maidstone Borough Council
- Tonbridge and Malling Borough Council
- Broxbourne Borough Council
- Medway Borough Council
- Tunbridge Wells Borough Council
- Castle Point Borough Council
- Mid Sussex District Council
- Uttlesford District Council
- Central Bedfordshire
- North Hertfordshire
- Vale of Wight Horse District Council
- Cherwell District Council
- Oxford City
- Watford Council
- Chichester District Council
- Reigate and Banstead Council
- Waverley Borough Council
- Chiltern District Council
- Royal Borough of Windsor and Maidenhead
- Wealden District Council
- Runnymede Borough Council
- Welwyn Hatfield Borough Council
- Cotswold District Council
- Rushmore Borough Council
- West Berkshire District Council
- Crawley Borough Council
- Sevenoaks District Council
- West Oxfordshire District Council
- Dacorum Borough Council
- Slough Borough Council
- Wiltshire Council
- Dartford Borough Council
- Buckinghamshire Council
- Woking Borough Council

- Mole Valley District Council
- South Northamptonshire Council
- Wokingham Borough Council
- East Hampshire District Council
- South Oxfordshire District Council
- Wycombe District Council
- East Hertfordshire District Council
- Spelthorne Borough Council
- Elbridge Borough Council
- St Albans City and District Council
- Epping Forest District Council
- Stevenage District Council
- Elmbridge Council
- South Downs National Park Authority
- Greater London Authority Local Plan and Local Plans of GLA authorities

### **River Basin Management Plans (RBMP)**

- Thames River Basin Management Plan 2021

### **Shoreline Management Plans (SMP)**

- SMP8 Essex and South Suffolk Shoreline Management Plan
- SMP 9 River Medway & Swale Estuary Shoreline Management Plan
- SMP 10 Isle of Grain to South Foreland Shoreline Management Plan

### **Flood and Coastal Erosion Risk Management Strategies**

- National Flood and Coastal Erosion Risk Management Strategy for England
- Local Flood and Coastal Erosion Risk Management Strategies for individual Boroughs within the GLA area
- The City of London Local Flood Risk Management Strategy 2021-2027
- Essex County Council Local Flood Risk Management Strategy (February 2013)
- Kent County Council Local Flood Risk Management Strategy (2017 – 2023)
- East Sussex Local Flood Risk Management Strategy (2016 – 2026)
- West Sussex Local Flood Risk Management Strategy (2013 - 2018)
- Surrey Local Flood Risk Management Strategy 2017-2032
- Hertfordshire County Council A Strategy For The Management Of Local Sources Of Flood Risk (LFRMS2) 2019- 2029
- Hampshire Local Flood Risk Management Strategy (LFRMS) 2020
- West Berkshire Draft Local Flood Risk Management Strategy (LFRMS) 2021-2026
- Oxfordshire Flood Risk Management Strategy 2021

- Warwickshire Surface Water Management Plan (SWMP) 2014
- Warwickshire Local Flood Risk Management Strategy 2016
- Gloucestershire County Council's Local Flood Risk Management Strategy (LFRMS) 2014
- West Berkshire Local Flood Risk Management Strategy 2013- 2017
- Swindon Local Flood Risk Management Strategy 2014
- Wiltshire Local Flood Risk Management Strategy 2015
- Buckinghamshire County Council Local Flood Risk Management Strategy 2017

## **Water Resource Management Plans (WRMP) and Drought Plans**

- Affinity Water WRMP (2020 – 2080)
- Affinity Water draft Drought Management Plan (2022)
- South East Water WRMP (2019)
- South East Water Drought Management Plan (2022 – 2027)
- Southern Water WRMP (2020 – 2070)
- Southern Water Drought Management Plan (2019)
- Sutton and East Surrey Water WRMP (2019)
- Sutton and East Surrey Water draft Drought Management Plan (2019)
- Wessex Water WRMP (2019)
- Wessex Water Drought Management Plan (2021)
- Thames Water WRMP (2019)
- Thames Water draft Drought Plan (2021)
- Essex and Suffolk Water WRMP (2019)
- Essex and Suffolk Water Drought Plan (2022)

## **Waste and Mineral Plans**

- Essex and Southend-on-sea Waste Local Plan 2017
- Essex Minerals Local Plan 2014 – 2029
- Kent Minerals and Waste Local Plan 2013-2030
- East Sussex, South Downs and Brighton & Hove Waste and Minerals Local Plan (submission May 2022)
- West Sussex Joint Minerals Local Plan to 2033
- West Sussex Waste Local Plan (2014 – 2031)
- Surrey Minerals Plan 2011-2026
- Surrey Waste Local Plan 2019-2033
- The City of London Waste Strategy 2013-2020
- Hertfordshire Emerging Minerals and Waste Local Plan
- Hampshire Minerals and Waste Plan (2013)
- West Berkshire Replacement Minerals Local Plan for Berkshire (2001 update)

- Waste Local Plan for Berkshire (2006)
- Warwickshire Minerals Plan Submission – November 2019
- Warwickshire The Waste Core Strategy 2013
- Gloucestershire: Minerals Local Plan for Gloucestershire (2018 - 2032)
- Gloucestershire Waste Local Plan (2002 – 2012) and the Waste Core Strategy (WCS) for Gloucestershire from November 2012
- Wiltshire and Swindon minerals core strategy 2006-2026
- Wiltshire and Swindon waste core strategy 2006-26
- Buckinghamshire Minerals and Waste Local Plan 2016 – 2036

## **National Infrastructure Projects**

- HS2
- Heathrow Airport Expansion
- The Thames Estuary 2100 Plan (TE2100)
- Oxford-Cambridge Arc

2.36 The potential for ‘in combination’ effects between these plans and projects and the FRMP are discussed later in this document.

## 3. Pathways of Impact

### Direct habitat loss

- 3.1 Any permanent, irreversible, habitat loss from a designated site that will result in the loss of qualifying habitats and / or species, or habitats that support the designated species, will be adverse, although to affect the integrity of the site (the coherence of its structure and function) the loss must be sufficiently adverse that it materially impairs the achievement of the Conservation Objectives for the site.
- 3.2 Various developments can result in the loss of habitat in European Sites, either temporary or permanent. Temporary habitat loss (e.g. such as due to the need for a construction period footprint to encroach on a site) is potentially reversible depending on what the site is designated for, and there is also potential for deploying mitigation measures to avoid adverse effects on site integrity. In contrast, the permanent loss of designated habitat will result in a reduction of coverage of a potentially very rare ecosystem, with potential knock-on impacts on dependent qualifying species.
- 3.3 Plans or projects that result in the loss of land from a SAC can be approved in certain situations (please see Defra (2012)<sup>9</sup>, even if the loss is sufficient to adversely affect the integrity of an SAC, if three sequential tests are met:
  - no feasible alternative solutions to the plan or project exist that are less damaging
  - imperative reasons of overriding public interest (IROPI)
  - compensatory measures secured to ensure that the overall coherence of the European Site network is maintained

### Inappropriate Coastal Management Including Coastal squeeze

- 3.4 Inappropriate coastal management covers any coastal management activities that would interfere with natural coastal processes to such an extent that they would potentially interfere with the ability of European sites to achieve their conservation objectives. Examples of inappropriate coastal management include:
  - Reduced sediment supply to adjacent frontages, resulting in loss of habitat area. For example, defending the Holderness Coast in East Yorkshire results in a reduction in the amount of longshore sediment that would otherwise be transported into the Humber Estuary SAC/SPA/Ramsar site and this in turn could affect the persistence of features that require a continued supply of sediment, such as Spurn Point.
  - Presence of flood risk management defences causing habitat erosion seawards of those defences due to wave reflection. This is more of an issue with some types of defence (such as sheet metal piling) than with other types of defence.
  - Restriction of the area of intertidal habitat in front of the flood risk management defences.
  - Coastal squeeze.

- 3.5 Coastal squeeze is defined by government as ‘the loss of natural habitats or deterioration of their quality arising from anthropogenic structures or actions, preventing the landward transgression of those habitats that would otherwise naturally occur in response to sea level rise in conjunction with other coastal processes. Coastal squeeze affects habitat on the seaward side of existing structures.’<sup>10</sup>
- 3.6 Measures which involve a ‘Hold the Line’ approach by establishing a hard structure or maintaining the existing standard of protection by improving the defences, have the potential to result in the loss of seaward habitats as a consequence of coastal squeeze. The process of coastal squeeze prevents the landward transgression of habitats in response to climate change and resulting sea level rise. Over time, unmitigated coastal squeeze would inevitably lead to the cumulative loss of designated habitats and supporting functionally-linked habitats. Coastal squeeze impacts due to measures have already been fully explored and mitigation or compensation quantified if necessary through the SMP and Coastal Strategy process and their HRAs, and through the Flood and Coastal Erosion Risk Management (FCERM) National Strategy 2021 and compensation delivered in the form of the Habitat Compensation Programme. Therefore, coastal squeeze is scoped out of this HRA.
- 3.7 All the FRMPs contain measures which refer to implementing or updating Shoreline Management Plans or Coastal Strategies or flood and coastal erosion risk management schemes that are contained within those documents. In commenting on the draft version of the HRA, Natural England advised the SMP Health Check documents will include detail on what changes to SMP HRAs will be required to account for (for example) changes in sea level rise predictions. However, these reports have not yet been completed or published, and as such this information is not yet available.
- 3.8 The approach taken throughout all FRMP HRAs is that, provided such schemes are already covered by the SMP/Coastal Strategy process or another HRA process, these measures are effectively included in the FRMPs for completeness. The FRMPs are not the source plans for these schemes and they are already committed elsewhere. The SMP and Coastal Strategies will be updated as part of their normal cycle and that will include revision to their HRAs which will take account of any changes in evidence. Each scheme will also have its own HRA before it is consented.

## Disturbance

- 3.9 Flood risk management construction works can result in noise or visual disturbance of qualifying species in European sites, both during the construction and operational periods. For example, noise and visual disturbance arising from construction may result in temporary behavioural changes in otters (e.g. disturbance in holts, displacement from specific stretches of the river). Piling noise during construction of defences could displace over wintering or breeding birds for which an SPA is designated. Three of the most important factors determining the magnitude of disturbance from construction schemes appear to be species sensitivity, proximity of the disturbance source and timing / duration of the disturbance.

## Birds

- 3.10 Development schemes (such as those for flood risk management assets) can result in the disturbance of qualifying SPA / Ramsar bird species in European sites or



functionally linked habitats and this can apply whatever activity the bird is undertaking, whether nesting, foraging, loafing or roosting. Noise and visual disturbance arising from construction activities may result in behavioural changes (e.g. flight from the nest, cessation of foraging) in birds. Furthermore, post-construction disturbance from site usage, road traffic and operational lighting might also arise. Three of the most important factors determining the magnitude of disturbance appear to be species sensitivity, proximity of the disturbance source and timing / duration of the disturbance. Generally, the most disturbing visual and auditory stimuli are likely to involve irregular, infrequent, unpredictable loud noise events, movements or vibrations. Birds are least likely to be disturbed by activities that involve regular, predictable and quiet patterns of sound or movement. The further any activity is from the birds, the less likely it is to result in disturbance.

- 3.11 An increasing amount of research on visual and noise disturbance of waterfowl from construction (and other activities) is now available. Both visual and noise stimuli may elicit disturbance responses, potentially affecting the fitness and survival of waterfowl and waders. Noise is a complex disturbance parameter requiring the consideration of multiple parameters, including the fact that it is not described on a linear scale, its nonadditive effect and the source-receptor distance. A high level of noise disturbance constitutes a sudden noise event of over 60dB or prolonged noise of over 72dB. Bird responses to high noise levels include major flight or the cessation of feeding, both of which might affect the survival of birds if other stressors are present (e.g. cold weather, food scarcity).
- 3.12 Generally, research has shown that above noise levels of 84 dB waterfowl show a flight response, while at levels below 55dB there is no effect on their behaviour<sup>11</sup>. These two thresholds are therefore considered useful as defining two extremes. The same authors have advised that regular noise levels should be below 70 dB at the bird, as birds will habituate to noise levels below this level<sup>12</sup>. The Waterbird Disturbance Mitigation Toolkit published by the Institute of Estuarine & Coastal Studies in 2013, summarises the key evidence base relating to the noise disturbance impact pathway<sup>13</sup>. Generally, noise is attenuated by 6 dB with every doubling of distance from the source. Impact piling, the noisiest construction process of approx. 110 dB at 0.67m from source, will therefore reduce to 67-68dB by 100m away from the source. The loudest construction noise should therefore have fallen to below disturbing levels by 100m, and certainly by 200m, away from the source even without mitigation. Note that this is a rule of thumb and does not obviate the need for application-level noise modelling. However, comparison with baseline noise levels will also be important in any assessment rather than purely using comparison with the 70 dB metric (see paragraph below).
- 3.13 An alternative approach to assessment is to consider the relative change in the noise levels experienced by birds, rather than an absolute noise threshold. There are no formal guidelines that define a change threshold that is deemed disturbing to waterfowl and waders, but they are thought to have hearing comparable to humans. For humans a change of 3 dB defines the threshold for a change in noise to be perceptible (in other words, a change of 1 or 2 dB cannot be detected by the human ear). However, there is a significant difference between being able to notice that a noise has gotten louder and finding the increase in noise to be sufficiently intolerable that it causes displacement or otherwise significantly disrupts activity. Therefore, 3 dB may be an excessively precautionary threshold to use for judging disturbance. Due to the logarithmic nature of the decibel scale a change of 5 dB increase at the receptor is approximately a 50% increase in perceived loudness while a 10 dB increase is a

doubling in perceived loudness or sound intensity. It is reasonable to assume that an increase of 10 dB would run a high risk of causing adverse impacts to bird behaviour such as flushing, for the duration of exposure.

- 3.14 Visual disturbance is generally considered to have a higher impact than noise disturbance as, in most instances, visual stimuli will elicit a disturbance response at much greater distances than noise<sup>14</sup>. For example, a flight response is triggered in most species when they are approached to within 150m across a mudflat. Visual disturbance can be exacerbated by workers operating equipment outside machinery, undertaking sudden movements and using large machinery. Some species are particularly sensitive to visual disturbance<sup>15</sup>, including curlew (taking flight at 275m), redshank (at 250m), shelduck (at 199m) and bar-tailed godwit (at 163m). In some areas, greater distances have been agreed between Environment Agency and Natural England, at least for purposes of HRA Screening. For example, in the Humber Estuary area have agreed a precautionary distance of 300m for the purposes of assessment of bird disturbance.

## Fish / Marine Mammals

- 3.15 Fish use sound for vital life functions, requiring it for completion of their life cycle as well as maintaining productivity. A review of 115 primary studies (66 of which were investigating fish species) highlights that noise disturbance leads to a wide range of impacts in fish, including their development, anatomy, physiology, stress levels and behaviour<sup>16</sup>. A study comparing the foraging behaviour of perch and roach, found that both species showed significantly fewer feeding attempts when exposed to motorboat noise<sup>17</sup>. For roach, which are better hearing than perch, no habituation to noise occurred over time. In a study of pink snappers (similar to many other commercial species such as tuna, cod and haddock), it was determined that a single seismic air gun with a source noise level of 222.6dB re 1uPa resulted in extensive damage to the ears, with no apparent recovery after 58 days<sup>18</sup>. The impacts of noise may not be immediately visible, as demonstrated by a noise playback experiment on perch, carp and gudgeon. Exposure of the fish to underwater ship noise, resulted in cortisol increases of between 81% to 120% compared to control values<sup>19</sup>. Notwithstanding this evidence, it is important to note that extrapolations from noise impact studies to different settings or species should be made with caution.
- 3.16 Construction noise also presents a significant threat (both regarding injury and mortality) to marine mammals, including harbour porpoise and grey seals. For example, the density of harbour porpoise has been shown to be significantly reduced for several kilometres surrounding seismic surveys and impact piling activities<sup>20 21</sup>. Cetaceans produce and receive sound over a great range of frequencies for use in communication, orientation, predator avoidance and foraging. Interference with these important behaviours has the potential to result in significant negative impacts. Harbour porpoise are high frequency cetaceans that have low sensitivity thresholds to impulsive sound sources. Anthropogenic sound has the potential to result in direct effects on the hearing ability of mammals (among other impacts, such as behavioural responses and masking of other underwater sounds), including Permanent Threshold Shifts (PTS) and Temporary Threshold Shifts (TTS)<sup>22</sup>. Some construction works within the marine environment may require Unexploded Ordnance (UXO) detonation, which involves impulsive sound elements stretching over tens of kilometres. In practice, it is typically not known whether such works will be required. Guidance from the Joint Nature Conservation Committee (as utilised for example in the HRA of the South-West England Marine Plan) confirms that a likely significant effect via

underwater noise could affect European sites up to 50km distant depending on the nature of the works.

## Pollution

3.17 The quality of the water that feeds European sites is an important determinant of the nature of their habitats and the species they support. Poor water quality can have a range of environmental impacts:

- At high levels, toxic chemicals and metals can result in immediate death of aquatic life, and can have detrimental effects even at lower levels, including increased vulnerability to disease and changes in wildlife behaviour.
- Eutrophication, the enrichment of water with nutrients, increases plant growth and consequently results in oxygen depletion. Algal blooms, which commonly result from eutrophication, increase turbidity and decrease light penetration. The decomposition of organic wastes that often accompanies eutrophication deoxygenates water further, augmenting the oxygen depleting effects of eutrophication. In freshwater ecosystems, plant growth is primarily determined by phosphorus concentrations, which are determined by a wide range of sources, including treated sewage effluent from Wastewater Treatment Works and urban surfaces such as roads.
- Some pesticides, industrial chemicals, and components of sewage effluent are suspected to interfere with the functioning of the endocrine system, possibly having negative effects on the reproduction and development of aquatic life.

3.18 There is an obligation for flood risk protection, management and resilience schemes to consider water quality impacts. Under the Environmental Damage (Prevention and Remediation) (England) Regulations 2015 and the Environmental Permitting (England and Wales) Regulations 2016, it is illegal to pollute watercourses. Individual planning proposals will undergo Preliminary Ecological Appraisal (PEA) or Environmental Impact Assessment (EIA), if identified as Schedule 1 or Schedule 2 proposals by the Town and Country Planning (Environmental Impact Assessment) Regulations 2017. As such, water quality protection measures must by law be introduced on any scheme that could affect the water quality of the river or coastal environment, irrespective of whether part of that environment is designated as an SAC or SPA.

3.19 For this reason, this particular impact pathway has not been used as a basis to screen in measures in this FRMP or identify the need for down-the-line HRA at lower planning tiers, as protecting water quality will be an inherent element in delivery of all measures irrespective of the designation status of linked waterbodies, watercourses and sensitive sites.

## Hydrology

3.1 The water level, its flow rates and the mixing conditions are important determinants of the condition of European sites and their qualifying features. Hydrological processes are critical in influencing habitat characteristics in wetlands and coastal waters, including current velocity, water depth, dissolved oxygen levels, salinity and water temperature. In turn these parameters indirectly determine the short- and long-term viability of plant and animal species, as well as overall ecosystem composition.

- 3.2 Many animal species are directly sensitive to hydrological changes, including the drying and excessive flooding of habitat. For example, many species (partially) restricted to the aquatic environment are sensitive to periodic or permanent drying, because this reduces the extent of supporting habitat available. This includes species such as the great-crested newt, southern damselfly, white-clawed crayfish and a diverse array of fish (e.g. Atlantic salmon, river lamprey, sea lamprey). In contrast, excessive flooding can result in sub-optimal water levels for foraging birds, such as small waders. If water is too deep, some species may not be able to access their primary prey species, with potential implications for foraging efficiency.
- 3.3 Wetland, riverine, estuarine and coastal habitats rely on hydrological connections with other surface water systems. A supply of water within natural limits is fundamental to maintaining the ecological integrity of sites. However, while the natural fluctuation of water levels within narrow limits is desirable, excess or too little water supply might cause the water level to be outside of the required range of plant and animal species. This might lead to the loss of the structure and function of aquatic habitats.
- 3.4 FRMPs generally propose measures to reduce the magnitude and impacts of potential flooding events. This may involve a wide range of interventions, such as flood defences and natural flood management techniques. If any such measures are delivered in the proximity to hydrology-dependent European sites, they may have implications for the water level in designated site boundaries. For example, a natural flood management intervention delivered immediately upstream of a designated floodplain or waterbody, while intended to restore the hydrological regime to a natural baseline, could reduce the volume of freshwater input to and flooding regime in that downstream European site.

## Functionally-Linked Land

- 3.5 While most European sites have been geographically defined in order to encompass the key features that are necessary for coherence of their structure and function, this is not the case for all such sites. Due to the highly mobile nature of waterfowl, it is inevitable that areas of habitat of crucial importance to the maintenance of their populations are outside the physical limits of the European site for which they are an interest feature. However, this area will still be essential for maintenance of the structure and function of the interest feature for which the site was designated and land use plans that may affect this land should still therefore be subject to further assessment. This has been underlined by a recent European Court of Justice ruling (C-461/17, known as the Holohan ruling<sup>23</sup>) which in paragraphs 37 to 40 confirms the need for an appropriate to consider the implications of a plan or project on habitats and species outside the European site boundary provided that those implications are liable to affect the conservation objectives of the site.
- 3.6 Certain management approaches, while positive for coastal processes, could result in the loss of landward habitats, such as coastal grazing marsh, grassland, reedbeds and arable land. Birds are mobile species and are also dependent on sites outside of formal designations and rely on the availability of a network of feeding and roosting resources over the winter period.

## Spread of invasive non-native species

- 3.7 Invasive non-native species can have detrimental impacts on native species and habitats. Their spread can occur during construction and operation of a development,

and via multiple pathways (for example via watercourses or on the treads of construction machinery).

- 3.8 Under the Wildlife and Countryside Act 1981, as amended, and the Invasive Alien Species (Enforcement and Permitting) Order 2019, it is an offence to cause any plant to spread or grow in the wild outside of its native range. Appropriate biosecurity measures will therefore also be implemented during works carried out during both the construction and operational phases of any scheme to prevent the spread of invasive non-native species, irrespective of whether there are European sites in the vicinity.

## 4. Test of Likely Significant Effects

- 4.1 When seeking to identify relevant European sites, consideration has been given primarily to identified impact pathways and the source-pathway-receptor approach, rather than adopting a purely 'zones'-based approach. The source-pathway-receptor approach is a standard tool in environmental assessment. In order for an effect to occur, all three elements of this mechanism must be in place. The absence or removal of one of the elements of the mechanism means there is no possibility for an effect to occur. Furthermore, even where an impact is predicted to occur, it may not result in significant effects (i.e. those which undermine the conservation objectives of a European site). Briefly defined, pathways are routes by which a change in activity can lead to a significant effect upon a European site.
- 4.2 The likely zone of impact (also referred to as the likely 'zone of influence') of a plan or project is the geographic extent over which significant ecological effects are likely to occur. The zone of influence of a plan or project will vary depending on the specifics of a particular proposal and must be determined on a case-by-case basis with reference to a variety of criteria, including:
- the nature, size / scale and location of the plan
  - the connectivity between the plan and European sites, for example through hydrological connections or because of the natural movement of qualifying species
  - the sensitivity of ecological features under consideration
  - the potential for in-combination effects
- 4.3 There is no geographical limit beyond which plans need not be considered by HRA. However, as a first step in identifying European sites which may be relevant, a search was made for sites within the River Basin District, or within 10km of the River Basin District. Consideration was then given to their hydrological sensitivity and the potential for them to be connected to flood risk management measures. The European sites identified within this search area is given in Table 2. Note that there are numerous European sites within the River Basin District or within 10km of it which are not hydrologically sensitive or likely to be affected by flood defences or are hydrologically sensitive but would not be linked to potential flood risk management activities. These are not listed below as they are scoped out of the HRA process.

### European Sites

- 4.4 There are clusters of hydrologically sensitive European sites across the Thames River Basin District, which can be divided into freshwater and coastal sites.

### Freshwater European sites

- 4.5 There are two main concentrations of freshwater (or hydrologically-sensitive inland) sites in the Thames region:
- Surrey/ Hampshire
  - Shortheath Common SAC
  - Thursley, Ash, Pribright and Chobham SAC
  - Woolmer Forest SAC

- Thursley and Ockley Bog Ramsar site
- Western Thames (Chilterns/ Berkshire/ Buckinghamshire/ Oxfordshire/ Wiltshire)
- Cothill Fen SAC (Oxfordshire)
- Kennet and Lambourne Floodplain SAC (Berkshire)
- Kennet Valley Alderwoods SAC (Berkshire)
- Little Wittenham SAC (Oxfordshire)
- North Meadow and Clattinger Farm SAC (Wiltshire)
- Oxford Meadows SAC (Oxfordshire)
- River Lambourn SAC (Berkshire/ Buckinghamshire/ Oxfordshire)
- South West London Waterbodies SPA (Berkshire/ Surrey/London)
- South West London Waterbodies Ramsar site (Berkshire/ Surrey/London)

4.6 In contrast, the Essex, Hertfordshire, Greater London Authority, Kent and Sussex parts of the River Basin District have relatively few freshwater or hydrologically-sensitive inland European sites. These are:

- Essex/ Hertfordshire/Greater London Authority
- Epping Forest SAC (which contains some wet heathland)
- Lee Valley SPA
- Lee Valley Ramsar site
- Sussex/ Kent
- Ashdown Forest SAC (which contains some wet heathland)
- Ashdown Forest SPA (which contains some wet heathland)
- Peter's Pit SAC

4.7 None of the measures in these counties have been identified to result in likely significant effects on any hydrologically sensitive freshwater sites. This is generally because the measures are:

- too non-specific to assess meaningfully
- already being implemented
- already subjected to a separate HRA process (e.g. a Coastal Strategy or a SMP will have its own HRA process)
- essentially desk-based
- remote from European sites: or
- worded such that they are about 'investigating' or 'reviewing' or 'identifying opportunities for' interventions, rather than committing to any specific interventions or actions on the ground. Any specific schemes that subsequently emerge from the investigation/review will be subject to their own down-the-line HRA process

4.8 One group of measures goes beyond 'investigating', 'reviewing' or 'identifying' by committing to 'delivering' or 'implementing' flood management interventions, making it clear that physical work on the ground will occur. In some instances, particularly for Management Catchment measures, the broad (and, occasionally, specific) location for these measures is known, while details of their implementation are not. Given the absence of details at the FRMP level, and in line with the approach to tiering of HRA

set out in Section 2, HRA (including Appropriate Assessment as necessary) must be deferred to later scheme development, lower tier plans, the outline business case and/or the planning application stage. Measures where this screening outcome applies have been categorised as 'No Likely Significant Effect, but down-the-line HRA required'. This approach has been adopted to account for the strategic (and thereby necessarily non-specific) nature of the FRMP, while also identifying the measures with the highest impact potential on European sites.

- 4.9 One broader matter requiring consideration as part of the Likely Significant Effects process is the extent to which any measures, through committing to the *status quo*, may be contributing to the exacerbation or persistence of an existing water-related problem at European sites. However, for the Thames region no specific measures have been identified that contain proposals that would reinforce a negative situation, subject to down-the-line HRA for any schemes that may emerge from the numerous studies committed to in the FRMP.
- 4.10 Although not technically within the remit of HRA, it is nonetheless noted that there are several measures that present opportunities for improving the hydrological situation at European sites in affected areas, in conjunction with nature recovery plans and catchment sensitive farming, particularly as applied to the key foci for hydrologically sensitive European sites in the Thames region. This is discussed in the following section within the context of the current hydrological vulnerability of relevant freshwater European sites.
- 4.11 Although non-specific, the following broad measures applicable to the River Basin District could give rise to initiatives and opportunities to improve European sites hydrology:
- Plan flood risk management projects to achieve wider environmental benefits where appropriate in their area
  - Build upon evidence gathered through River Thames Scheme study to progress appraisal of preferred options in Old Windsor and Wraysbury to reduce flood risk and provide environmental benefits in the Wraysbury
  - Progress the appraisal of the preferred options of the Colnbrook flood alleviation scheme in Colnbrook to reduce flood risk and provide environmental benefits in the West London Strategic Area.
  - Plan all flood risk management projects in England to achieve biodiversity net gain and wider environmental benefits
  - Work with Partners to start building a 8 km flood relief channel alongside the River Thames in the River Thames Scheme area to reduce flood risk to 11,000 properties and 1,600 commercial properties, enhance the resilience of nationally important infrastructure including reducing the risk to 300km of highway, increase biodiversity, secure fish passages at key locations on main Thames river and achieve environmental net gain by creating habitats and accessible green spaces for the benefit of people and wildlife
  - Work with developers in the Thames Estuary to (1) ensure that the cumulative impact of National Significant Infrastructure Projects on flood risk is considered and adequately mitigated and (2) identify opportunities to achieve flood risk and biodiversity net gain through development, as well as seeking developer contributions towards the maintenance of flood defence infrastructure.



- 4.12 Between them these measures could provide opportunities to improve the hydrological situation in sensitive European sites as well as protecting homes and economic assets.
- 4.13 Oxford Meadows SAC is very hydrologically sensitive and the volume and duration of water inputs are fundamental (along with appropriate management) to preserving the floodplain grassland interest of the site. The Supplementary Advice on the Conservation Objectives (SACO) for the SAC state 'Defining and maintaining the appropriate hydrological regime is a key step in moving towards achieving the conservation objectives for this site and sustaining this feature. Changes in source, depth, duration, frequency, magnitude and timing of water supply can have significant implications for the assemblage of characteristic plants and animals present'. It is understood that currently Oxford Meadows flood regime is acceptable to preserve the European site.
- 4.14 In contrast, the Site Improvement Plan for North Meadow & Clattinger Farm SAC (also a flood meadow site in the floodplain of the upper River Thames) states 'There have been several unseasonal floods over the last six years which are beginning to cause changes and losses in the vegetation communities on the site'. The SACO expands on this as follows: 'In recent years, both sites have suffered prolonged periods of flooding which has threatened the continuation of traditional meadow management, particularly at North Meadow. The underlying shallow gravel deposits and adjacent watercourses at both sites present challenges for future management in the context of expected changes in climatic conditions'.
- 4.15 Lee Valley SPA/Ramsar site and South West London Waterbodies SPA/Ramsar site are both hydrologically sensitive but many components of both sites are operational reservoirs such that water levels are artificially controlled. It is understood that both sites have generally acceptable water levels. However, the measure: 'Build upon evidence gathered through River Thames Scheme study to progress appraisal of preferred options in Old Windsor and Wraysbury to reduce flood risk and provide environmental benefits in the Wraysbury' could be adapted to benefit the South West London Waterbodies SPA/Ramsar site as there are numerous components of the site (including several flooded gravel pits) within the Wraysbury area.
- 4.16 Similarly, the measure 'progress the appraisal of the preferred options of the Colnbrook flood alleviation scheme in Colnbrook to reduce flood risk and provide environmental benefits in the West London Strategic Area' could also be used to benefit the SPA/Ramsar site through (for example) using flood alleviation scheme to improve functionally-linked habitat for the site. Equally, the measure 'Work with Partners to start building a 8 km flood relief channel alongside the River Thames in the River Thames Scheme area to reduce flood risk to 11,000 properties and 1,600 commercial properties, enhance the resilience of nationally important infrastructure including ... environmental net gain by creating habitats and accessible green spaces for the benefit of people and wildlife' could also be used to achieve functionally-linked habitat benefits for SPA/Ramsar birds given the proximity of the scheme to parts of the SPA/Ramsar site. The measures: 0218206009 'Construct a wetland in Chestnuts Showground', 0208706003 'Deliver a programme of sustainable drainage, wetland and river restoration schemes in urban areas creating better places for people in Enfield' and 'Design, build and manage Natural Flood Management scheme in Chestnut's Park, St Ann's, London Borough of Haringey' could also be beneficial for the SPA in terms of functional linkage.

- 4.17 The Site Improvement Plan for Cothill Fen SAC notes that ‘There is concern that fen areas of Cothill Fen SAC may be becoming drier, and that this may be affecting populations of rare fen plants and invertebrates. This needs to be investigated by carrying out hydrological studies of the fen, and detailed studies of vegetation & invertebrates’. The hydrological catchment for the fen has since been identified and is relatively localised around the SAC. As such, there is limited potential for FRMP measures as written to improve conditions at the SAC.
- 4.18 The Site Improvement Plan for Kennet & Lambourn Flood Plain SAC and River Lambourn SAC states that ‘Siltation is an issue in several stretches of the river, mostly related to past modification of river morphology and flow rates. The river morphology is currently unfavourable but being addressed by a river restoration plan’. It also identifies that resourcing difficulties are making delivery of the restoration plan challenging. Similarly, for the related Kennet Valley Alderwoods SAC the Site Improvement Plan states ‘The wet woodlands have various river channels and carriers flowing through them. Some failed structures and breached channels have caused changes in flows through the site in recent years. These need to be managed and maintained to protect water levels to maintain the wet woodland’.

## Coastal European sites

- 4.19 The following European sites have freshwater hydrological vulnerabilities.
- Benfleet and Southend Marshes SPA
  - Foulness (Mid-Essex Coats Phase 5) SPA
  - Medway Estuary SPA
  - Outer Thames Estuary SPA
  - The Swale SPA
  - Benfleet and Southend Marshes Ramsar site
  - Foulness (Mid-Essex Coast Phase 5) Ramsar site
  - Medway Estuary and Marshes Ramsar site
  - Thames Estuary and Marshes Ramsar site
  - The Swale Ramsar site
- 4.20 Hydrologically sensitive coastal European sites occupy much of the Essex and Kent coastline. There are numerous measures in the Thames FRMP which refer to implementing or reviewing Coastal Strategies and SMPs. Such plans and strategies present considerable potential for impacts on sensitive coastal sites as set out in Section 3, particularly coastal squeeze, direct habitat loss from coastal defence footprints and (depending on use of land outside SPA boundaries by qualifying wildfowl and waders) loss of functionally-linked land.
- 4.21 However, the FRMP does not decide the content of either SMP’s or Coastal Strategies (including the package of underlying schemes) as these are subject to their own independent development and assessment processes, including HRA. The FRMP’s are essentially referencing these strategies and plans to create a complete picture of flood risk management in coastal areas. Therefore, despite the potential SMPs and Coastal Strategies possess for affecting European sites, the FRMP measures relating to those plans will not result in likely significant effects.
- 4.22 Measures that commit to ‘reviewing’ SMP’s or Coastal Strategies do contain within them the potential to also commit to shaping those plans with a view not simply to

managing flood risk to human assets but also positively influencing persistence and/or recovery of coastal habitats. This is not strictly an HRA consideration, since HRA is fundamentally about identifying whether given measures will interfere with the ability of European sites to achieve their conservation objectives, rather than shaping them to positively contribute towards achievement of those objectives. However, those measures could be amended to include reference to shaping the next generation of SMP's and Coastal Strategies to not only take account of the latest sea level rise projections but also opportunities to improve achievement of conservation objectives for the European sites on the relevant frontage.

- 4.23 The Medway Estuary & Marshes SPA/Ramsar site and The Swale SPA/Ramsar site are both understood to be at risk of an excessive reduction in water flows on the marshlands and in the upper creeks due to a combination of climate change and abstraction, particularly during conditions of low flows. This could change the foraging value of the upper creeks by changing the balance of salinity, which are known to be of particular importance for the birds for which both SPAs are designated (as well as for plant and invertebrate species for which the Ramsar sites are designated). The measure '*Work with developers in the Thames Estuary to (1) ensure that the cumulative impact of National Significant Infrastructure Projects on flood risk is considered and adequately mitigated and (2) identify opportunities to achieve flood risk and biodiversity net gain through development, as well as seeking developer contributions towards the maintenance of flood defence infrastructure*' could, depending on how it is delivered, positively benefit these European sites by improving their resilience to other pressures such as climate change and abstraction.
- 4.24 Full details of the European sites (including Conservation Objectives and pressures and threats) that are hydrologically connected to the Thames River Basin District are available in Appendix A.

**Table 2. European sites within 10km of the Thames River Basin District and that are potentially linked to local flood risk management measures**

Site name	Qualifying feature(s) ( <i>and latest assessed condition</i> )	Summary of connectivity with the River Basin District
Ashdown Forest SAC	Northern Atlantic wet heaths with <i>Erica tetralix</i> . European dry heaths. Great-crested newt <i>Triturus cristatus</i> .	<p>Located outside of the Thames RBD, within the South East RBD. It is located within the Adur and Ouse, Medway WFD Management Catchment.</p> <p>For many SAC features which are dependent on wetland habitats supported by surface and/or ground water, maintaining the quality and quantity of water supply will be critical, especially at certain times of year. Poor water quality and inadequate quantities of water can adversely affect the structure and function of this habitat type.</p>

Site name	Qualifying feature(s) ( <i>and latest assessed condition</i> )	Summary of connectivity with the River Basin District
Cothill Fen SAC	<p>Alkaline fens; Calcium-rich springwater-fed fens. Alder woodland on floodplains (Priority habitat).</p>	<p>Located within the Thames RBD and Vale of White Horse WFD Management Catchment.</p> <p>The alkaline fens are supported by surface and ground water, maintaining the quality and quantity of water supply will be critical, especially at certain times of year. Poor water quality and inadequate quantities of water can adversely affect the structure and function of this habitat type.</p>
Epping Forest SAC	<p>Northern Atlantic wet heaths with <i>Erica tetralix</i>; Wet heathland with cross-leaved heath. European dry heaths. Atlantic acidophilous beech forests with <i>Ilex</i> and sometimes also <i>Taxus</i> in the shrublayer (<i>Quercion roburi-petraeae</i> or <i>Ilici-Fagenion</i>); Beech forests on acid soils. Stag beetle <i>Lucanus cervus</i>.</p>	<p>Located within the Thames RBD and London WFD Management Catchment.</p> <p>The wet heathland habitat is dependent on suitable ground water levels. Climate change poses a threat to prologued drying out.</p> <p>The wet heath is also vulnerable to poor water quality from run-off from roads and agricultural fields which may elevate pollutant, nutrient and salinity levels</p>

Site name	Qualifying feature(s) ( <i>and latest assessed condition</i> )	Summary of connectivity with the River Basin District
Kennet and Lambourne Floodplain SAC	Desmoulin's whorl snail <i>Vertigo moulinsiana</i> .	<p>Located within the Thames RBD and the Kennet and Pang WFD Management Catchment.</p> <p>The habitats upon which the designated feature depends have the potential to be affected by siltation, water pollution, hydrological changes, inappropriate water levels and changes in land management.</p> <p>Further, measures include areas within the SAC and as such direct loss of habitat, pollution, and disturbance are of relevance to this designated site.</p>
Kennet Valley Alderwoods SAC	Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> ( <i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i> ). (Annex I priority habitat: Alder woodland on floodplains)*.	<p>Located within the Thames RBD and Kennet and Pang WFD Management Catchment.</p> <p>The habitat for which this SAC is designated is vulnerable to inappropriate water levels.</p>

Site name	Qualifying feature(s) ( <i>and latest assessed condition</i> )	Summary of connectivity with the River Basin District
Little Wittenham SAC	Great crested newt <i>Triturus cristatus</i> .	<p>Located within the Thames RBD and the Thame and South Chilterns WFD Management Catchment.</p> <p>The designated features spends a portion of its life within aquatic environments and is sensitive to changes in both ground and surface water flow and quality.</p>
North Meadow and Clattinger Farm SAC	<p>Lowland hay meadows (<i>Alopecurus pratensis</i>, <i>Sanguisorba officinalis</i>).</p>	<p>Located within the Thames RBD and the Cotswolds WFD Management Catchment.</p> <p>The lowland hay meadows that this site is designated for is vulnerable to inappropriate water levels, and water pollution.</p>
Oxford Meadows SAC	<p>Lowland hay meadows (<i>Alopecurus pratensis</i>, <i>Sanguisorba officinalis</i>).</p> <p>Creeping marshwort <i>Apium repens</i>.</p>	<p>Located within the Thames RBD and the Thames and South Chilterns WFD Management Catchment.</p> <p>The lowland hay meadows and creeping marshwort for which this site is designated for is vulnerable to hydrological changes.</p>

Site name	Qualifying feature(s) ( <i>and latest assessed condition</i> )	Summary of connectivity with the River Basin District
Peter's Pit SAC	Great crested newt <i>Triturus cristatus</i> .	<p>Located within the Thames RBD and the Medway WFD Management Catchment.</p> <p>The ponds at this SAC are groundwater fed and have widely fluctuating water levels. This should be maintained to support the meta population of great crested newts for which the SAC is designated.</p>
River Lambourne SAC	<p>Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitriche-Batrachion</i>.</p> <p>Brook lamprey <i>Lampetra planeri</i>.</p> <p>Bullhead <i>Cottus gobio</i>.</p>	<p>Located within the Thames RBD and the Kennet and Pang WFD Management Catchment.</p> <p>The habitats upon which the designated feature depends have the potential to be affected by siltation, water pollution, hydrological changes, inappropriate water levels and changes in land management.</p>



Site name	Qualifying feature(s) ( <i>and latest assessed condition</i> )	Summary of connectivity with the River Basin District
Shortheath Common SAC	<p>Transition mires and quaking bogs.</p> <p>European dry heaths.</p> <p>Bog woodland.</p>	<p>Located within the Thames RBD and Wey WFD Management Catchment.</p> <p>Defining and maintaining the appropriate hydrological regime is a key step in moving towards achieving the conservation objectives for this site and sustaining this feature. Changes in source, depth, duration, frequency, magnitude and timing of water supply can have significant implications for the assemblage of characteristic plants and animals present.</p>
Thursley, Ash, Pribright and Chobham SAC	<p>Depressions on peat substrates of the <i>Rhynchosporion</i>.</p> <p>European dry heaths.</p> <p>Northern Atlantic wet heaths with <i>Erica tetralix</i>. (Wet heathland with cross-leaved heath).</p>	<p>Located within the Thames RBD and Wey WFD Management Catchment.</p> <p>Defining and maintaining the appropriate hydrological regime is a key step in moving towards achieving the conservation objectives for this site and sustaining this feature. Changes in source, depth, duration, frequency, magnitude and timing of water supply can have significant implications for the assemblage of characteristic plants and animals present.</p>

Site name	Qualifying feature(s) ( <i>and latest assessed condition</i> )	Summary of connectivity with the River Basin District
Woolmer Forest SAC	<p>Natural dystrophic lakes and ponds.</p> <p>Northern Atlantic wet heaths with <i>Erica tetralix</i>.</p> <p>European dry heaths.</p> <p>Transition mires and quaking bogs.</p> <p>Depressions on peat substrates of the <i>Rhynchosporion</i>.</p>	<p>Located within the Thames RBD and Wey WFD Management Catchment.</p> <p>Defining and maintaining the appropriate hydrological regime is a key step in moving towards achieving the conservation objectives for this site and sustaining this feature. Changes in source, depth, duration, frequency, magnitude and timing of water supply can have significant implications for the assemblage of characteristic plants and animals present.</p>

Site name	Qualifying feature(s) ( <i>and latest assessed condition</i> )	Summary of connectivity with the River Basin District
Ashdown Forest SPA	Dartford warbler <i>Sylvia undata</i> (breeding). Nightjar <i>Caprimulgus europaeus</i> (breeding).	<p>Located outside of the Thames RBD, within the South East RBD. It is located within the Adur and Ouse, Medway WFD Management Catchment.</p> <p>For many SAC features which are dependent on wetland habitats supported by surface and/or ground water, maintaining the quality and quantity of water supply will be critical, especially at certain times of year. Poor water quality and inadequate quantities of water can adversely affect the structure and function of this habitat type. The SPA features in part rely upon the SAC habitats for their existence.</p>
Benfleet and Southend Marshes SPA	Dark-bellied brent goose <i>Branta bernicla bernicla</i> (non-breeding). Ringed plover <i>Charadrius hiaticula</i> (non-reeding). Grey plover <i>Pluvialis squatarola</i> (non-breeding). Red knot <i>Calidris canutus</i> (non-breeding). Dunlin <i>Calidris alpina alpina</i> (non-breeding). Waterbird assemblage.	<p>Located within the Thames RBD and Thames TraC/ Anglian TraC WFD Management Catchment.</p> <p>The habitats upon which these designated features depend are hydrologically sensitivity to the balance of freshwater and saline inputs.</p>

Site name	Qualifying feature(s) ( <i>and latest assessed condition</i> )	Summary of connectivity with the River Basin District
Foulness (Mid-Essex Coats Phase 5) SPA	<p>Dark-bellied brent goose <i>Branta bernicla bernicla</i> (non-breeding).</p> <p>Hen harrier <i>Circus cyaneus</i> (non-breeding).</p> <p>Eurasian oystercatcher <i>Haematopus ostralegus</i> (non-breeding).</p> <p>Pied avocet <i>Recurvirostra avosetta</i> (breeding).</p> <p>Ringed plover <i>Charadrius hiaticula</i> (breeding).</p> <p>Grey plover <i>Pluvialis squatarola</i> (non-breeding).</p> <p>Red knot <i>Calidris canutus</i> (non-breeding).</p> <p>Bar-tailed godwit <i>Limosa lapponica</i> (non-breeding).</p> <p>Common redshank <i>Tringa totanus</i> (non-breeding).</p> <p>Sandwich tern <i>Sterna sandvicensis</i> (breeding).</p> <p>Common tern <i>Sterna hirundo</i> (breeding).</p> <p>Little tern <i>Sterna albifrons</i> (breeding).</p> <p>Waterbird assemblage.</p>	<p>Located within the Thames RBD and Thames TraC/ Anglian TraC WFD Management Catchment.</p> <p>The habitats upon which these designated features depend are hydrologically sensitive to the balance of freshwater and saline inputs.</p>

Site name	Qualifying feature(s) ( <i>and latest assessed condition</i> )	Summary of connectivity with the River Basin District
Lee Valley SPA	Bittern <i>Botaurus stellaris</i> (non-breeding). Shoveler <i>Anas clypeata</i> (non-breeding). Gadwall <i>Anas strepera</i> (non-breeding).	<p>Located within the Thames RBD and London WFD Management Catchment.</p> <p>The vegetation and invertebrates that provide food for the designated duck species and fish that provide food for the bitterns are sensitive to hydrological changes including water quality, levels and flow rates. The habitat mosaic within the SPA varies from clear open water with abundant aquatic vegetation to moderately eutrophic conditions. This balance of mosaics needs to be maintained. Changes in water quality need to be managed to prevent loss of suitable habitat and food sources. In addition reservoir levels linked to operational requirements and all water bodies are subject to natural fluctuations accounting for abstraction and climatic change.</p>

Site name	Qualifying feature(s) ( <i>and latest assessed condition</i> )	Summary of connectivity with the River Basin District
Medway Estuary SPA	<p>Dark-bellied brent goose <i>Branta bernicla bernicla</i> (non-breeding).</p> <p>Common shelduck <i>Tadorna tadorna</i> (non-breeding).</p> <p>Northern pintail <i>Anas acuta</i> (non-breeding).</p> <p>Pied avocet <i>Recurvirostra avosetta</i> (breeding).</p> <p>Pied avocet <i>Recurvirostra avosetta</i> (non-breeding).</p> <p>Ringed plover <i>Charadrius hiaticula</i> (non-breeding).</p> <p>Grey plover <i>Pluvialis squatarola</i> (non-breeding).</p> <p>Red knot <i>Calidris canutus</i> (non-breeding).</p> <p>Dunlin <i>Calidris alpina alpina</i> (non-breeding).</p> <p>Common redshank <i>Tringa totanus</i> (non-breeding).</p> <p>Little tern <i>Sterna albifrons</i> (breeding).</p> <p>Waterbird assemblage.</p> <p>Breeding bird assemblage.</p>	<p>Located within the Thames RBD and Medway WFD Management Catchment.</p> <p>The habitats upon which these designated features depend are hydrologically sensitivity to the balance of freshwater and saline inputs.</p>
Outer Thames Estuary SPA	<p>Red-throated diver <i>Gavia stellata</i>.</p> <p>Common tern <i>Sterna hirundo</i>.</p> <p>Little tern <i>Sternula albifrons</i>.</p>	<p>Located within the Thames RBD and Anglian RBD and Thames TraC and Anglian TraC WFD Management Catchment.</p> <p>The habitats upon which these designated features depend are hydrologically sensitivity to the balance of freshwater and saline inputs.</p>

Site name	Qualifying feature(s) ( <i>and latest assessed condition</i> )	Summary of connectivity with the River Basin District
South West London Waterbodies SPA	Northern shoveler <i>Anas clypeata</i> . Gadwall <i>Anas strepera</i> .	<p>Located within the Thames RBD and Colne, Maidenhead to Sunbury, Weaver/Gowy WFD Management Catchments</p> <p>This designated site comprises active reservoirs and lakes. Some waterbodies are unlined and are connected to groundwater flows, so are vulnerable to changes in ground water flows, whilst others are not connected to ground water flows and are active reservoirs with artificially managed water levels.</p> <p>In addition, to the proximity of measures to this designated site, impacts relating to proximity such as disturbance, direct habitat loss, pollution and functionally linked land are also of relevance.</p>

Site name	Qualifying feature(s) ( <i>and latest assessed condition</i> )	Summary of connectivity with the River Basin District
Thames Estuary and Marshes SPA	Dunlin <i>Calidris alpina alpina</i> (non-breeding). Red knot <i>Calidris canutus</i> (non-breeding). Ringed plover <i>Charadrius hiaticula</i> (non-reeding). Hen harrier <i>Circus cyaneus</i> (non-breeding). Black-tailed godwit <i>Limosa limosa islandica</i> (non-breeding). Grey plover <i>Pluvialis squatarola</i> (non-breeding). Pied avocet <i>Recurvirostra avosetta</i> (non-breeding). Common redshank <i>Tringa totanus</i> (non-breeding).	Located within the Thames RBD and Medway WFD Management Catchment.  The habitats upon which these designated features depend are hydrologically sensitivity to the balance of freshwater and saline inputs.



Site name	Qualifying feature(s) ( <i>and latest assessed condition</i> )	Summary of connectivity with the River Basin District
The Swale SPA	<p>Avocet <i>Recurvirostra avosetta</i> (breeding).</p> <p>Marsh Harrier <i>Circus aeruginosus</i> (breeding).</p> <p>Mediterranean Gull <i>Larus melanocephalus</i> (breeding).</p> <p>Avocet <i>Recurvirostra avosetta</i> (non-breeding).</p> <p>Bar-tailed Godwit <i>Limosa lapponica</i> (non-breeding).</p> <p>Golden Plover <i>Pluvialis apricaria</i> (non-breeding).</p> <p>Hen Harrier <i>Circus cyaneus</i> (non-breeding).</p> <p>Black-tailed Godwit <i>Limosa limosa islandica</i> (non-breeding).</p> <p>Grey Plover <i>Pluvialis squatarola</i> (non-breeding).</p> <p>Knot <i>Calidris canutus</i> (non-breeding).</p> <p>Pintail <i>Anas acuta</i> (non-breeding).</p> <p>Redshank <i>Tringa tetanus</i> (non-breeding).</p> <p>Shoveler <i>Anas clypeata</i> (non-breeding).</p> <p>Dark-bellied Brent goose <i>Branta bernicla bernicla</i> (non-breeding).</p> <p>Dunlin <i>Calidris alpina alpina</i> (non-breeding).</p> <p>Ringed Plover <i>Charadrius hiaticula</i> (passage).</p> <p>Waterfowl assemblages.</p>	<p>Located within the Thames RBD and North Kent WFD Management Catchment.</p> <p>The habitats upon which these designated features depend are hydrologically sensitivity to the balance of freshwater and saline inputs.</p>

Site name	Qualifying feature(s) ( <i>and latest assessed condition</i> )	Summary of connectivity with the River Basin District
Benfleet and Southend Marshes Ramsar site	Water fowl assemblages. Dark-bellied brent goose <i>Branta bernicla bernicla</i> (wintering). Grey plover <i>Pluvialis squatarola</i> (wintering). Red knot <i>Calidris canutus islandica</i> (wintering). Dunlin <i>Calidris alpina alpina</i> (wintering).	Located within the Thames RBD and Thames TraC/ Anglian TraC WFD Management Catchment.  The habitats upon which these designated features depend are hydrologically sensitive to the balance of freshwater and saline inputs.

Site name	Qualifying feature(s) ( <i>and latest assessed condition</i> )	Summary of connectivity with the River Basin District
Foulness (Mid-Essex Coast Phase 5) Ramsar site	<p>Ramsar Criterion 1a: This site qualifies by virtue of the extent and diversity of saltmarsh habitat present. This and four sites in the Mid-Essex Coast Ramsar site complex, include a total of 3,237 ha, that represent 70% of the saltmarsh habitat in Essex and 7* of the total area of saltmarsh in Britain.</p> <p>Ramsar Criterion 2a: The site supports a number of nationally – rare and nationally – scarce plant species, and British Red Data Book invertebrates.</p> <p>Ramsar Criterion 2b: The site contains extensive saltmarsh habitat, with areas supporting full and representative sequences of saltmarsh plant communities covering the range of variation in Britain.</p> <p>Ramsar Criterion 3a: Internationally important waterfowl assemblages (greater than 20,000 birds).</p> <p>Ramsar Criterion 3c: Overwinter the site regularly supports internationally important populations of: bar-tailed Godwit <i>Limosa lapponica</i>, dark-bellied Brent Goose <i>Branta bernicula bernicula</i>, grey Plover <i>Pluvialis squatarola</i>, knot <i>Calidris canutus</i>, oystercatcher <i>Haematopus ostralegus</i> and redshank <i>Tringa tetanus</i>.</p>	<p>Located within the Thames RBD and Thames TraC/ Anglian TraC WFD Management Catchment.</p> <p>The designated habitats themselves and the designated species which rely upon the habitats are hydrologically sensitive to the balance of freshwater and saline inputs.</p>

Site name	Qualifying feature(s) ( <i>and latest assessed condition</i> )	Summary of connectivity with the River Basin District
Lee Valley Ramsar site	Criterion 2: by supporting the nationally scarce plant species whorled water-milfoil <i>Myriophyllum verticillatum</i> and the rare or vulnerable invertebrate <i>Micronecta minutissima</i> (a water-boatman).	<p>Located within the Thames RBD and London WFD Management Catchment.</p> <p>The designated vegetation and invertebrates are sensitive to hydrological changes including water quality, levels and flow rates. The habitat mosaic within the site varies from clear open water with abundant aquatic vegetation to moderately eutrophic conditions. This balance of mosaics needs to be maintained. Changes in water quality need to be managed to prevent loss of suitable environmental conditions and food sources. In addition reservoir levels linked to operational requirements and all water bodies are subject to natural fluctuations accounting for abstraction and climatic change.</p>

Site name	Qualifying feature(s) ( <i>and latest assessed condition</i> )	Summary of connectivity with the River Basin District
Medway Estuary and Marshes Ramsar site	<p>Ramsar criterion 2: The site supports nationally scarce plants and at least seven British Red data book invertebrates.</p> <p>Ramsar criterion 5: Assemblages of international importance: Species with peak counts in winter: 47637 waterfowl (5 year peak mean 1998/99-2002/2003).</p> <p>Ramsar criterion 6: – Species/populations occurring at levels of international importance. The site has bird species occurring in internationally important numbers: Redshank, grey plover (spring/autumn), dark-bellied brent goose, shelduck, pintail, red knot, ringed plover, dunlin (winter).</p>	<p>Located within the Thames RBD and Medway WFD Management Catchment.</p> <p>The environmental conditions upon which these designated features depend are hydrologically sensitivity to the balance of freshwater and saline inputs.</p>

Site name	Qualifying feature(s) ( <i>and latest assessed condition</i> )	Summary of connectivity with the River Basin District
South West London Waterbodies Ramsar site	Ramsar criterion 6: Over winter the site regularly supports internationally important populations of: gadwall <i>Anas strepera</i> , and shoveler <i>Anas clypeata</i> .	<p>Located within the Thames RBD and Colne, Maidenhead to Sunbury, Weaver/Gowy WFD Management Catchments</p> <p>This designated site comprises active reservoirs and lakes. Some waterbodies are unlined and are connected to groundwater flows, so are vulnerable to changes in ground water flows, whilst others are not connected to ground water flows and are active reservoirs with artificially managed water levels.</p> <p>In addition, to the proximity of measures to this designated site, impacts relating to proximity such as disturbance, direct habitat loss, pollution and functionally linked land are also of relevance.</p>

Site name	Qualifying feature(s) ( <i>and latest assessed condition</i> )	Summary of connectivity with the River Basin District
Thames Estuary and Marshes Ramsar site	<p>Ramsar site under criterion 6 for species that over-winter and over-summer. Over-summering species include:</p> <ul style="list-style-type: none"> <li>• Ringed plover <i>Charadrius hiaticula</i></li> <li>• Black-tailed godwit <i>Limosa canutus islandica</i></li> </ul> <p>Over-wintering species include:</p> <ul style="list-style-type: none"> <li>• Grey plover <i>Pluvialis squatarola</i></li> <li>• Red knot <i>Calidris canutus islandica</i></li> <li>• Dunlin <i>Calidris alpina alpina</i></li> <li>• Common redshank <i>Tringa tetanus tetanus</i></li> </ul> <p>In addition, the site qualifies as a Ramsar under criterion 2, by supporting the endangered least lettuce <i>Lactuca saligna</i> and at least 14 nationally scarce plants of wetland habitats, including bulbous foxtail <i>Alopecurus bulbosus</i>.</p>	<p>Located within the Thames RBD and Medway WFD Management Catchment.</p> <p>The habitats and environmental conditions upon which these designated features depend are hydrologically sensitive to the balance of freshwater and saline inputs.</p>

Site name	Qualifying feature(s) ( <i>and latest assessed condition</i> )	Summary of connectivity with the River Basin District
The Swale Ramsar site	<p>Ramsar criterion 2: The site supports nationally scarce plants and at least seven British Red data book invertebrates.</p> <p>Ramsar criterion 5: Assemblages of international importance: Species with peak counts in winter: 77501 waterfowl (5 year peak mean 1998/99-2002/2003).</p> <p>Ramsar criterion 6: – Species/populations occurring at levels of international importance.</p> <p>Species with peak counts in spring/autumn:</p> <ul style="list-style-type: none"> <li>• Common redshank <i>Tringa totanus tetanus</i></li> </ul> <p>Species with peak counts in winter:</p> <p>Dark-bellied brent goose <i>Branta bernicla bernicla</i></p> <p>Grey plover <i>Pluvialis squatarola</i></p> <p>Species/populations identified subsequent to designation for possible future consideration under criterion 6:</p> <p>Species with peak counts in spring/autumn:</p> <ul style="list-style-type: none"> <li>• Ringed plover <i>Charadrius hiaticula</i></li> </ul> <p>Species with peak counts in winter:</p> <ul style="list-style-type: none"> <li>• Eurasian wigeon <i>Anas penelope</i></li> <li>• Northern pintail <i>Anas acuta</i></li> <li>• Northern shoveler <i>Anas clypeata</i></li> <li>• Black-tailed godwit <i>Limosa limosa islandica</i></li> </ul>	<p>Located within the Thames RBD and North Kent WFD Management Catchment.</p> <p>The habitats upon which these designated features depend are hydrologically sensitivity to the balance of freshwater and saline inputs.</p>



Site name	Qualifying feature(s) ( <i>and latest assessed condition</i> )	Summary of connectivity with the River Basin District
Thursley and Ockley Bog Ramsar site	<p>Criterion 2: The site supports a community of rare wetland invertebrate species including notable numbers of breeding dragonflies.</p> <p>Criterion 3: It is one of the few sites in Britain to support all six native reptile species. The site also supports nationally important breeding populations of European nightjar <i>Caprimulgus europaeus</i> and woodlark <i>Lullula arborea</i>.</p>	<p>Located within the Thames RBD and Wey WFD Management Catchment.</p> <p>Defining and maintaining the appropriate hydrological regime is a key step in moving towards achieving the conservation objectives for this site and sustaining this feature. Changes in source, depth, duration, frequency, magnitude and timing of water supply can have significant implications for the assemblage of characteristic plants and animals present.</p>

- 4.25 Having identified the European sites that are likely to be hydrologically linked to flood risk management activities, consideration was next given to the potential impact sources from the FRMP at all stages and pathways to European sites (including those located at distances of more than 10km if there is connectivity) by which effects could arise on qualifying features.
- 4.26 Based on all possible impacts, pathways, and receptors, the Test of Likely Significant Effects for each measure in the FRMP is undertaken in the following tables.

**Table 3. Screening table showing the Test of Likely Significant Effects results for Lead Local Flood Authority (LLFA) national measures contained within all Flood Risk Management Plans**

Measure ID	Measure	Likely Significant Effects on European sites
0299999007	Act as a consultee for major planning applications in their area	No likely significant effect – This measure describes the role of LLFAs
0299999011	Designate third party flood risk assets and maintain a register of designated flood risk assets in their area	No likely significant effect – Designating assets and maintaining a register will not affect European sites
0299999003	Implement relevant government guidance on taking climate change into account where necessary for flood risk decision making in their area	No likely significant effect – Taking climate change into account will not affect European sites
0299999018	Investigate local flood events where appropriate and necessary in their area	No likely significant effect – Investigating local flood events will not affect European sites
0299999002	Maintain, keep under review, apply and monitor a local flood risk management strategy in their area	No likely significant effect – The production of a local flood risk management strategy will not itself affect European sites
0299999015	Plan flood risk management projects to achieve wider environmental benefits where appropriate in their area	No likely significant effect – Ensuring that flood risk projects achieve wider environmental benefits will not negatively affect European sites
0299999006	Provide information to inform spatial and infrastructure planning, development and regeneration in their area	No likely significant effect – The provision of information will not affect European sites
0299999013	Regulate the condition of, and third party activity on, ordinary watercourses and review new works on ordinary watercourses in their area	No likely significant effect – Regulating activities and works will not affect European sites

Measure ID	Measure	Likely Significant Effects on European sites
0299999004	Start implementing steps to work towards net zero carbon in their area	No likely significant effect – Implementing net zero carbon will not affect European sites
0299999016	Support communities to increase their resilience to flooding in their area	No likely significant effect – Supporting communities to increase resilience to flooding will not affect European sites
0299999017	Support emergency response partners and communities to plan, prepare and exercise for future flood scenarios in their area	No likely significant effect – Supporting planning for emergency response to flooding will not affect European sites
0299999012	Take a risk based approach to develop and maintain a register of flood risk assets/features in their area	No likely significant effect – Maintaining a register of assets will not affect European sites
0299999005	Work in partnership with other risk management authorities to reduce the risk of flooding from all sources in their area	No likely significant effect – This is a wide-ranging measure and the details include that by 2027, risk management authorities will have developed and/or delivered a programme of flood risk management capital schemes and/or maintenance to reduce risk of flooding and coastal change and its adverse consequences for human health and wellbeing. Individual capital schemes may have an effect on European sites depending on what and where they are and how they are to be delivered. However, developing a programme of capital schemes will not itself lead to likely significant effects on European sites. Any individual capital schemes will need to be subject to HRA before being consented, in order to comply with legislation.
0299999009	Work with other flood asset owners and riparian landowners to raise awareness of, and where necessary enforce, maintenance responsibilities in their area	No likely significant effect – specific maintenance measures could have an adverse effect on European sites (although they are unlikely to be approved measures if so) but a requirement to raise awareness of, and enforce where required, necessary flood asset maintenance will not adversely affect European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0299999010	Work with other risk management authorities to identify a programme of nature based approaches in their area	No likely significant effect – working with other authorities to identify a programme of nature-based approaches will not adversely affect European sites.
0299999008	Work with other risk management authorities to provide information where necessary to update flood maps in their area	No likely significant effect – providing information will not adversely affect European sites.
0299999014	Work with other risk management authorities to support the delivery of flood projects in their area	No likely significant effect – providing support to other authorities will not adversely affect European sites.
0299999019	Work with others to support communities through the recovery phase of a significant flood event in their area	No likely significant effect – supporting communities will not adversely affect European sites.

**Table 4. Screening table showing the Test of Likely Significant Effects results for Environment Agency national measures contained within all Flood Risk Management Plans**

Measure ID	Measure	Likely Significant Effects on European sites
0299999041	Continue to review flood events to improve and develop flood services in England	No likely significant effect – reviewing flood events will not adversely affect European sites.
0299999025	Designate flood risk assets where necessary in England	No likely significant effect – designating flood risk assets will not adversely affect European sites.
0299999046	Drive down carbon emissions and deliver the required flood risk management outcomes when planning and carrying out flood risk management works in England	No likely significant effect – driving down carbon emissions will not adversely affect European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0299999030	In its strategic overview role, work with risk management authorities, including facilitating effective partnerships in local places in England	No likely significant effect – working with risk management authorities will not adversely affect European sites.
0299999044	Invest in flood risk management projects to contribute to improving the natural, built and historic environments	No likely significant effect – investing in projects will not adversely affect European sites.
0299999035	Issue and maintain guidance on taking climate change into account for flood risk decision making in England	No likely significant effect – issuing guidance will not adversely affect European sites.
0299999026	Maintain and update a database of its flood risk assets in England	No likely significant effect – maintaining a database will not adversely affect European sites.
0299999020	Monitor weather, tidal, rainfall and river conditions to provide flood forecasts in England	No likely significant effect – monitoring will not adversely affect European sites.
0299999042	Plan all flood risk management projects in England to achieve biodiversity net gain and wider environmental benefits	No likely significant effect – planning for biodiversity net gain will not adversely affect European sites.
0299999043	Plan all flood risk management projects in England to help achieve river basin management plan objectives	No likely significant effect – this measure is about achieving the environmental objectives of river basin management plans. This will not adversely affect European sites.
0299999033	Provide quality and timely planning advice to help avoid inappropriate development in areas at risk of flooding in England	No likely significant effect – provision of planning advice will not adversely affect European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0299999031	Regulate large, raised reservoirs in England	No likely significant effect – regulating reservoirs to reduce the risk of flooding from dam and reservoir failures will not adversely affect European sites.
0299999028	Regulate new works to main rivers and sea defences in England	No likely significant effect – regulating new works to reduce the likelihood of flooding will not adversely affect European sites.
0299999039	Respond to flood events and support other emergency responders in England	No likely significant effect – responding to flood events to reduce the consequences of flooding will not adversely affect European sites.
0299999040	Support communities to increase their resilience to flooding in England	No likely significant effect – supporting communities to help them increase their resilience will not adversely affect European sites.
0299999023	Take a risk based approach to inspect, maintain and operate assets in England	No likely significant effect – adopting a risk based approach will not adversely affect European sites.
0299999027	Take targeted enforcement action where there are blockages or unpermitted structures in England	No likely significant effect – taking enforcement action regarding blockages or unpermitted structures will not adversely affect European sites.
0299999024	Understand the long term needs of its assets and plan for their whole life management in England	No likely significant effect – developing an understanding of long-term asset needs will not adversely affect European sites.
0299999045	Work with catchment partnerships, communities and other risk management authorities to maximise the use of nature based solutions in England	No likely significant effect – working to maximise the use of nature-based solutions rather than other methods of flood risk management will not adversely affect European sites.
0299999021	Work with emergency response partners to issue appropriate flood warnings in England	No likely significant effect – issuing flood warnings will not adversely affect European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0299999022	Work with emergency response partners to plan, prepare and exercise for future flood scenarios in England	No likely significant effect – preparing for flood scenarios will not adversely affect European sites.
0299999032	Work with local planning authorities, developers and other place makers in England	No likely significant effect – working with other authorities to ensure all new development is resilient to flooding will not adversely affect European sites.
0299999029	Work with research partners and the wider scientific community in England	No likely significant effect – working with research partners into new approaches to reduce risk of flooding will not adversely affect European sites.
0299999036	Work with risk management authorities and other partners to implement the National Flood and Coastal Erosion Risk Management Strategy in England	No likely significant effect – individual proposals within the National Flood and Erosion Risk Management Strategy may pose likely significant effects to European sites but the Strategy has been subject to its own HRA. The measure concerns working with other authorities to implement the Strategy, which will not itself adversely affect European sites.
0299999038	Work with risk management authorities to identify a programme of future flood risk management projects in England	No likely significant effect – a commitment to identify a programme of future projects will not adversely affect European sites. Individual schemes and projects may have an effect on European sites depending on what and where they are and how they are to be delivered. However, all schemes will need to be subject to HRA before being consented, in order to comply with legislation.
0299999034	Work with risk management authorities to maintain and update where necessary flood maps in England	No likely significant effect – maintaining and updating flood maps will not adversely affect European sites.



Measure ID	Measure	Likely Significant Effects on European sites
0299999037	Work with risk management authorities to support the delivery of flood risk management projects in England	No likely significant effect – supporting risk management authorities in delivering flood risk management projects will not itself adversely affect European sites. Individual schemes and projects may have an effect on European sites depending on what and where they are and how they are to be delivered. However, all schemes will need to be subject to HRA before being consented, in order to comply with legislation.

**Table 5. Screening table showing the Test of Likely Significant Effects results for measures contained within the Thames Flood Risk Management Plan applicable across the RBD**

Measure ID	Measure	Likely Significant Effects on European sites
0206206013	Develop a Local Nature Recovery Strategy	No Likely significant effect – The commitment to provide a Local Nature Recovery Strategy is a positive step to aid conservation. This will not adversely affect European sites.
0203006098	Develop a shared vision of critical flood risk management activities and allocation of tasks and sources of funding in Surrey County	No Likely significant effect – This measure identifies the commitment to provide a shared vision of critical flood risk management activities and allocates tasks and sources funding. This will not adversely affect European sites.
0203006099	Seek and support early engagement on large third-party infrastructure in Thames River Basin District	No Likely significant effect – providing a commitment to seek and support early engagement on large third party infrastructure in the Thames River Basin District (TRBD) will not adversely affect European sites.
0203006097	Work as part of the Collaborative Delivery Framework to promote new ways of working in Thames River Basin District	No Likely significant effect – providing a commitment to working as part of a Collaborative Delivery Framework to promote new ways of working within the TRBD will not adversely affect European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0203006094	Work in partnership including with Thames Flood Advisors to support all lead local flood authorities to apply for Government funding in Thames River Basin District	No Likely significant effect – providing a commitment to work in partnership with the Thames Flood Advisors to support all lead flood authorities to apply for Government funding in the TRBD will not adversely affect European sites.
0203006084	Between 2021 and 2027, the Environment Agency will work in partnership to develop a catchment-scale approach which will complement local place based flood risk schemes in non-tidal River Thames catchment (Thames Valley) to reduce flood risk, build climate resilience, enhance the environment, grow the economy, support sustainable growth and improve health and wellbeing for local communities in the Thames River Basin District.	No Likely significant effect – providing a commitment to work in partnership to develop a catchment-scale approach which will complement local place based flood risk schemes in non-tidal River Thames catchment (Thames Valley) will not adversely affect European sites.
0203006096	Work in partnership with other risk management authorities to support proactive development of strategic environmental plans in Thames River Basin District	No Likely significant effect – providing a commitment to work in partnership with other risk management authorities to support proactive development of strategic environmental plans in Thames River Basin District will not adversely affect European sites.
0203006095	Work in partnership with other risk management authorities to support the implementation of the Thames Regional Flood and Coastal Committee 25 year vision in Thames River Basin District	No Likely significant effect – providing a commitment to work in partnership with other risk management authorities to support the implementation of the Thames Regional Flood and Coastal Committee 25 year vision in Thames River Basin District will not adversely affect European sites.

**Cherwell and Ray Management Catchment – No Measures**

**Colne Management Catchment – No Measures**

**Cotswolds Management Catchment – No Measures**

**Darent and Cray Management Catchment – No Measures**

**Table 6. Screening table showing the Test of Likely Significant Effects results for measures contained within the Thames Flood Risk Management Plan applicable across the Essex South Management Catchment**

<b>Measure ID</b>	<b>Measure</b>	<b>Likely Significant Effects on European sites</b>
0200705098	Continue to work with partners to deliver actions specified in the Thames Estuary 2100 Plan in the River Thames Estuary	No Likely significant effect, TE2100 Plan already consented – continuing to work with partners to deliver actions specified in the Thames Estuary 2100 Plan in the River Thames Estuary will not adversely affect European sites. The Thames Estuary 2100 Plan (TE2100) will have been subject to its own specific HRA. This measure is simply a commitment to continue with the implementation of an adopted plan.

**Gloucestershire and the Vale Management Catchment – No Measures**

**Kennet and Trib Management Catchment – No Measures**

**Kent North Management Catchment – No Measures**

**Lee Upper Management Catchment – No Measures**

**Loddon and Trib Management Catchment – No Measures**

**London Management Catchment – No Measures**

**Maidenhead and Sunbury Management Catchment – No Measures**

**Medway Management Catchment – No Measures**

**Mole Management Catchment – No Measures**

**Roding Beam and Ingrebourne Management Catchment – No Measures**

**ThamesTraC Management Catchment – No Measures**

**Thames and Chilterns South Management Catchment – No Measures**

**Wey and Trib Management Catchment – No Measures**

**Table 7. Screening table showing the Test of Likely Significant Effects results for measures contained within the Thames Flood Risk Management Plan applicable across the Byfleet and Weybridge, Thames (RoFRS) Flood Risk Area**

Measure ID	Measure	Likely Significant Effects on European sites
0203206042	Continue to maintain and seek to rationalise and optimise existing structure in Byfleet weir	No Likely significant effect, already consented - This measure is already being implemented so will have been subject to measure specific scrutiny. The FRMP measure merely commits to continue with this measure.
0288806043	Have improved existing assets by replacing overfall weir with 3-6 large new gates as part of the River Thames Scheme in Teddington, Molesey and Sunbury weir	No Likely significant effect, already consented –provides a commitment to improve the existing assets by replacing overfall weir with 3-6 large new gates as part of the River Thames Scheme in Teddington, Molesey and Sunbury weir.
0288806041	Have worked with local planning authorities and other partners to identify opportunities for design in the River Thames Scheme area	No Likely significant effect, already consented – provides a commitment to work with LPAs and partners to identify opportunities for design in the River Thames Scheme area. This will not adversely affect European sites.
0203206004	Support deployment of temporary flood barriers	No Likely significant effect, already consented - provides the commitment to support the deployment of temporary flood barriers in the Walton Lane area. This measure is already being implemented and will have been subject to measure specific HRA scrutiny as required. The FRMP measure merely commits to continue with this measure.
0203206005	Work in partnership to investigate opportunities including transforming existing infrastructure in Byfleet and Weybridge, downstream of the Sanway-Byfleet flood alleviation scheme	No Likely significant effect - provides the commitment to work in partnership to investigate opportunities including transforming existing infrastructure in Byfleet and Weybridge, downstream of the Sanway-Byfleet flood alleviation scheme. This will not adversely affect European sites and this area is remote from hydrologically sensitive European sites
0203206002	Work in partnership to progress options and build a flood alleviation scheme	No Likely significant effect, already consented - provides the commitment to work in partnership to progress options and build a flood alleviation scheme at Sanway- Byfleet. This measure does not provide any detailed scheme specifics and as such cannot be subject to HRA at this stage. Furthermore, this measure is carried over from FRMP and will have been subject to HRA as part of the development of the FRMP1.

Measure ID	Measure	Likely Significant Effects on European sites
0288806040	Work with Partners to install property resilience measures in the River Thames Scheme area	No Likely significant effect, already consented –provides the commitment to work with Partners to install property resilience measures in the River Thames Scheme area. This is an ongoing scheme has already been consented and as such will already have been subject to HRA.
0288806039	Work with Partners to start building a 8 km flood relief channel alongside the River Thames in the River Thames Scheme area	No Likely significant effect, already consented - provides the commitment to work with Partners to start building a 8 km flood relief channel alongside the River Thames in the River Thames Scheme area. Since the flood relief channels traverse close to South West London Waterbodies SPA/Ramsar site, there is potential for effects from the scheme, but this is an ongoing measure that has already been consented and as such will already have been subject to HRA. The measure is simply a commitment to continue with it.
0288806042	Work with Partners to support deployment of temporary flood barriers in the River Thames Scheme area	No Likely significant effect, already consented - provides the commitment to work with Partners to support deployment of temporary flood barriers in the River Thames Scheme area. This is an ongoing scheme has already been consented and as such will already have been subject to HRA.
0203206003	Work in partnership with Wey Forward	No Likely significant effect, already consented – provide the commitment to work in Partnership with the Wey Forward in the Wey catchment to identify opportunities to deliver multiple benefits including biodiversity net gain in the Byfleet and Weybridge, Thames Flood Risk Area. Working in partnership to identify opportunities does not in itself link to any European site. It would be those opportunities that are identified that may require HRA in the future.
0288806039	Work with Partners to start building a 8 km flood relief channel alongside the River Thames in the River Thames Scheme area	No Likely significant effect, already consented - provides the commitment to work with Partners to start building an 8km flood relief channel alongside the River Thames. This is an ongoing scheme has already been consented and as such will already have been subject to HRA.

Measure ID	Measure	Likely Significant Effects on European sites
0203206018	Work with Partners to install property resilience measures in the River Thames Scheme area	No Likely significant effect, already consented –provides the commitment to work with Partners to install property resilience measures in the River Thames Scheme area. This is an ongoing scheme has already been consented and as such will already have been subject to HRA.
0203206068	Have worked with local planning authorities and other partners to identify opportunities for design in the River Thames Scheme area	No Likely significant effect, already consented – provides a commitment to work with LPAs and partners to identify opportunities for design in the River Thames Scheme area. This will not adversely affect European sites.
0203206020	Work with Partners to support deployment of temporary flood barriers in the River Thames Scheme area	No Likely significant effect, already consented - provides the commitment to work with Partners to support deployment of temporary flood barriers in the River Thames Scheme area. This is an ongoing scheme has already been consented and as such will already have been subject to HRA.
0203206070	Have improved existing assets by replacing overfall weir with 3-6 large new gates as part of the River Thames Scheme in Teddington, Molesey and Sunbury weir	No Likely significant effect, already consented – provides to improved existing assets by replacing overfall weir with 3-6 large new gates as part of the River Thames Scheme in Teddington, Molesey and Sunbury weir. This is an ongoing measure that has already been consented and as such will already have been subject to HRA.

**Table 8. Screening table showing the Test of Likely Significant Effects results for measures contained within the Thames Flood Risk Management Plan applicable across the Canvey Island, Thames (RoFSW) Flood Risk Area**

Measure ID	Measure	Likely Significant Effects on European sites
0208806042	Act on recommendations within the Green Infrastructure Strategy and Climate Action Commission in Essex	No Likely significant effect – this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0208806036	Attend quarterly catchment partnership meetings in Essex	No Likely significant effect – this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0208806035	Carry out annual asset inspections on completed capital schemes to review maintenance needs in Essex	No Likely significant effect, already consented – provides to carry out annual asset inspections on completed capital schemes to review maintenance needs in Essex. This is an ongoing measure that has already been consented and as such will already have been subject to HRA.
0208804033	Conduct a twice yearly review with local risk management authority partners in Essex	No Likely significant effect – a high level measure that provides for twice yearly review of current schemes and to ensure that, where appropriate, an adaptive approach is taken to enhance resilience in the Canvey Island, Thames Flood Risk Area. A commitment to undertake reviews will not affect European sites
0208806044	Continue delivery of educational communications and marketing campaigns of the council's 'Know Your Flood Risk' webpages in Essex	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0208806043	Continue marketing of the property flood resilience grant scheme in targeted areas known to be at highest risk in Essex	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.



Measure ID	Measure	Likely Significant Effects on European sites
0208806034	Continue to progress the floods capital programme, where funding allows in Essex	<p>No Likely significant effect, already consented, but down-the-line HRA may be required – provides to continue the progression of the floods capital programme where funding is available in Essex. This is an ongoing measure that has already been consented and as such will already have been subject to HRA.</p> <p>It is the measures that are provided by the floods capital programme that may require physical on the ground work, that could potentially link to a European site. HRA may be required of future planned work that is funded by the flood capital programme. In line with the guidance quoted in paragraph 2.27, down-the-line assessment will be required as further details emerge regarding what will be done to deliver this measure.</p>
0208806032	Ensure information about risk management authority goals is accessible via Local Flood Risk Management Strategy to develop a joint strategic vision in Essex	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0208806041	Feed into the local plan development process in Essex	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0208806037	Identify any key infrastructure that the lead local flood authority deems to be at significant risk of surface water flooding in Canvey Island	No Likely significant effect - this measure purely identifies key infrastructure that may be deemed to be at risk. It does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0208806046	Identify community groups at risk and promote the formation of a flood group in Canvey Island	No Likely significant effect - this measure purely identifies community groups at risk and to promote community resilience. It does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0208806045	Partner with Essex Flood Board members to actively promote awareness of flood risk, dangers of flood water, and various response and recovery roles in Essex	No Likely significant effect - this measure provides for a partnership to promote awareness of flood risk, dangers of flood water, and various response and recovery roles in Essex. It does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0208806038	Provide guidance about resilience measures to owners of key infrastructure at significant flood risk in Canvey Island	No Likely significant effect - this measure does not provide for any physical on the ground development, merely provides guidance. As such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0208806039	Run a yearly sustainable drainage systems workshop to better understand challenges faced by developers when meeting local guidance requirements in Essex	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0208806040	Undertake a yearly review of the sustainable drainage systems guide and make changes where appropriate in Essex	No Likely significant effect – a high level measure that provides for a yearly review of the sustainable drainage systems guide and make changes where appropriate in Essex. A commitment to reviewing guidance will not affect European sites

**Table 9. Screening table showing the Test of Likely Significant Effects results for measures contained within the Thames Flood Risk Management Plan applicable across the Chatham, Thames (RoFSW) Flood Risk Area**

Measure ID	Measure	Likely Significant Effects on European sites
0202006031	Develop a scheme in partnership with Southern Water and Highways in Chatham	No Likely significant effect – a high level measure that provides for the intention to develop a scheme to reduce the risk of surface water flooding to properties in and around Nelson Terrace, Luton and Chatham in the Chatham, Thames Flood Risk Area in partnership with Medway Lead Local Authority, Southern Water and Highways in Chatham. Although Chatham is within 3km of Medway Estuary & Marshes SPA/Ramsar site it is noted this measure is associated with surface water rather than fluvial flooding.

**Table 10. Screening table showing the Test of Likely Significant Effects results for measures contained within the Thames Flood Risk Management Plan applicable across the Chertsey, Thames (RoFRS) Flood Risk Area**

Measure ID	Measure	Likely Significant Effects on European sites
0203206016	Have improved existing assets by replacing overfall weir with 3-6 large new gates as part of the River Thames Scheme in Teddington, Molesey and Sunbury weir	No Likely significant effect, already consented – provides to improved existing assets by replacing overfall weir with 3-6 large new gates as part of the River Thames Scheme in Teddington, Molesey and Sunbury weir. This is an ongoing measure that has already been consented and as such will already have been subject to HRA.
0203206014	Have worked with local planning authorities and other partners to identify opportunities for design in the River Thames Scheme area	No Likely significant effect, but down-the-line HRA may be required – a high level measure that provides for the intention to partnership to identify opportunities for design in the River Thames Scheme area to enable master planning initiatives. This measure in itself does not provide for any physical development, however it will be the master planning that is undertaken later down the line as a result of this measure that may have the potential to interact with European sites that may require a scheme specific HRA, however the appropriate level of detail is not available within the FRMP. In line with the guidance quoted in paragraph 2.27, down-the-line assessment will be required as further details emerge regarding what will be done to deliver this measure.

Measure ID	Measure	Likely Significant Effects on European sites
0203206013	Work with Partners to install property resilience measures in the River Thames Scheme area	No Likely significant effects, already consented – This is an ongoing measure to work in partnership to install property resilience measures in the River Thames scheme area to reduce flood risk to over 400 homes in Chertsey. If an individual resilience measures requires HRA, this will be undertaken at the appropriate individual development level.
0203206012	Work with Partners to start building a 8 km flood relief channel alongside the River Thames in the River Thames Scheme area	No Likely significant effect, already consented – provides for the Environment Agency to work with Partners to start building a 8 km flood relief channel alongside the River Thames in the River Thames Scheme area to reduce flood risk to 11,000 properties and 1,600 commercial properties, enhance the resilience of nationally important infrastructure including reducing the risk to 300km of highway, increase biodiversity, secure fish passages at key locations on main Thames river and achieve environmental net gain by creating habitats and accessible green spaces for the benefit of people and wildlife. Since the flood relief channels traverse close to South West London Waterbodies SPA/Ramsar site, there is potential for effects from the scheme, but this is an ongoing measure that has already been consented and as such will already have been subject to HRA. The measure is simply a commitment to continue with it.
0203206015	Work with Partners to support deployment of temporary flood barriers in the River Thames Scheme area	No Likely significant effect, already consented – provides for the Environment Agency to work with Partners to support deployment of temporary flood barriers in the River Thames Scheme area to reduce the impact of smaller, more frequent floods subject to National availability, resources and forecast in the Chertsey. This is an ongoing measure that has already been consented and as such will already have been subject to HRA.

**Table 11. Screening table showing the Test of Likely Significant Effects results for measures contained within the Thames Flood Risk Management Plan applicable across the Chesham, Thames (RoFSW) Flood Risk Area**

Measure ID	Measure	Likely Significant Effects on European sites
0206206011	Develop a Council Flood Plan to set out the specific service response procedures in the event of a flooding incident	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. The Flood Plan will itself be subject to a Pan level HRA as part of its development and adoption.
0201606007	Have implemented a plan in the Vale Brook and linked area	No Likely significant effect, already consented and is being implemented – It identifies that by 2027, the Environment Agency will have implemented a plan in the Vale Brook and linked area to address the multi-source flood risk in Chesham area to reduce the impact from flooding in the Chesham. This measure is carried over from FRMP1 and has already been subject to HRA.
0206206005	Implement culvert upgrade and Property Flood Resilience measures in Chesham	No Likely significant effect, already consented and is being built out – This measure identifies that between 2021 and 2023, Buckinghamshire Council will implement culvert upgrade and Property Flood Resilience measures in Chesham to reduce the risk of surface and fluvial flooding and increase resilience of individual residential and commercial properties in the Chesham. This is an active measure that (dependant on the physical extent of the measure) will have been subject to HRA if required.
0206206008	Work in partnership to develop an integrated water management plan in Chesham	No likely significant effect – This measure provides for a partnership between Buckinghamshire Council, the Environment Agency and Thames Water will Work to develop a water management plan in Chesham. This measure does not provide for any physical on the ground development, and Chesham is remote from European sites.

**Table 12. Screening table showing the Test of Likely Significant Effects results for measures contained within the Thames Flood Risk Management Plan applicable across the Crawley, Thames (RoFSW) Flood Risk Area**

Measure ID	Measure	Likely Significant Effects on European sites
0218706054	Hold consultation and exhibition events, and work with residents, to support the delivery of local flood actions or local Operation Watershed Projects in Northwest Crawley	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0218706052	Investigate and record any current or emerging surface water or groundwater issues with the Borough Council in Northwest Crawley	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0218706053	Promote sustainable surface water drainage arrangements for new and future development, in their role as statutory consultees, in Northwest Crawley	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0218706056	Set up specific sub-groups to investigate opportunities for nature based solutions within catchments in Northwest Crawley	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

**Table 13. Screening table showing the Test of Likely Significant Effects results for measures contained within the Thames Flood Risk Management Plan applicable across the Datchet, Thames (RoFRS) Flood Risk Area**

Measure ID	Measure	Likely Significant Effects on European sites
0203006047	Build upon evidence gathered through River Thames Scheme study to progress appraisal of preferred options in Datchet	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0203006029	Complete a modelling study of fluvial and groundwater interactions building upon the updated Lower Thames (2019)	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0203006043	Develop a shared vision in Datchet	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0203006033	Review impacts of flood map changes and consider providing a groundwater alert service	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0203006028	Support deployment of temporary flood barriers	No Likely significant effect – this measure merely provides support for the deployment of temporary flood barriers in Datchet. This is an ongoing measure that will have already been subject to HRA if required.
0203006031	Use the newly developed "opportunities mapper" (online mapping system)	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0203006030	Work with communities to scope property flood resilience measures where capital projects costs outweighs benefits	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0203006032	Work with partners to identify critical infrastructure at risk of flooding in Datchet	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

**Table 14. Screening table showing the Test of Likely Significant Effects results for measures contained within the Thames Flood Risk Management Plan applicable across the Ditton, Thames (RoFRS) Flood Risk Area**

Measure ID	Measure	Likely Significant Effects on European sites
0202006002	Carry out a review of legacy assets in Ditton	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0202006004	Carry out the flood action campaign in Ditton	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0202006003	Follow national planning policy framework and planning practice guidance on flood risk and coastal change in Ditton	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0202006005	Undertake survey of all main river culverts in Ditton	No Likely significant effect – this measure identifies that between 2021 and 2027, the Environment Agency will undertake a survey of all main river culverts in Ditton to inform maintenance and reduce flood risk in the Ditton, Thames Flood Risk Area. There are no European sites within proximity to the Ditton Flood Risk Area. There are no links to any European sites.

**Table 15. Screening table showing the Test of Likely Significant Effects results for measures contained within the Thames Flood Risk Management Plan applicable across the East Peckham, Thames (RoFRS) Flood Risk Area**

Measure ID	Measure	Likely Significant Effects on European sites
0202006008	Carry out a review of legacy assets in East Peckham	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.



Measure ID	Measure	Likely Significant Effects on European sites
0202006010	Carry out specific flood awareness activities through the medway flood partnership and the flood action campaign in East Peckham	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0202006009	Follow national planning policy framework and planning practice guidance on flood risk and coastal change in East Peckham	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0202006006	Investigate a property flood resilience scheme in East Peckham	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0202006007	Use the Lower Bourne-Coult Stream model to assess the impact of the Pound Lane Culvert in East Peckham	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

**Table 16. Screening table showing the Test of Likely Significant Effects results for measures contained within the Thames Flood Risk Management Plan applicable across the Egham, Thames (RoFRS) Flood Risk Area**

Measure ID	Measure	Likely Significant Effects on European sites
0203206021	Have improved existing assets by replacing overfall weir with 3-6 large new gates as part of the River Thames Scheme in Teddington, Molesey and Sunbury weir	No Likely significant effect, already consented – provides to improved existing assets by replacing overfall weir with 3-6 large new gates as part of the River Thames Scheme in Teddington, Molesey and Sunbury weir. This is an ongoing measure that has already been consented and as such will already have been subject to HRA.

Measure ID	Measure	Likely Significant Effects on European sites
0203206019	Have worked with local planning authorities and other partners to identify opportunities for design in the River Thames Scheme area	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0203206018	Work with Partners to install property resilience measures in the River Thames Scheme area	No Likely significant effects, already consented – This is an ongoing measure to work in partnership to install property resilience measures in the River Thames scheme area to reduce flood risk to over 400 homes in Egham. If an individual resilience measures requires HRA, this will be undertaken at the appropriate individual development level.
0203206017	Work with Partners to start building a 8 km flood relief channel alongside the River Thames in the River Thames Scheme area	No Likely significant effect, already consented - provides the commitment to work with Partners to start building a 8 km flood relief channel alongside the River Thames in the River Thames Scheme area. Since the flood relief channels traverse close to South West London Waterbodies SPA/Ramsar site, there is potential for effects from the scheme, but this is an ongoing measure that has already been consented and as such will already have been subject to HRA. The measure is simply a commitment to continue with it.
0203206020	Work with Partners to support deployment of temporary flood barriers in the River Thames Scheme area	No Likely significant effect – this measure merely provides support for the deployment of temporary flood barriers in Egham. This is an ongoing measure that will have already been subject to HRA if required.

**Table 17. Screening table showing the Test of Likely Significant Effects results for measures contained within the Thames Flood Risk Management Plan applicable across the Esher, Thames (RoFRS) Flood Risk Area**

Measure ID	Measure	Likely Significant Effects on European sites
0201806054	Continue maintenance of designated flood assets in the Lower Mole Flood Alleviation area	No Likely significant effect, already consented - provides the commitment to continue the maintenance of designated flood assets in the Lower Mole Flood Alleviation area. This is an ongoing scheme has already been consented and as such will already have been subject to HRA.

Measure ID	Measure	Likely Significant Effects on European sites
0203006026	Have improved existing assets by replacing overfall weir with 3-6 large new gates as part of the River Thames Scheme	No Likely significant effect, already consented – provides to improved existing assets by replacing overfall weir with 3-6 large new gates as part of the River Thames Scheme in Teddington, Molesey and Sunbury weir. This is an ongoing measure that has already been consented and as such will already have been subject to HRA.
0203006025	Have worked with local planning authorities and other partners to identify opportunities for design in the River Thames Scheme area	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0201906022	Work in partnership to identify technically and economically viable options in Esher and Molesey	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0203006024	Work with Partners to install property resilience measures in the River Thames Scheme area	No Likely significant effects, already consented – this is an ongoing measure to work in partnership to install property resilience measures in the River Thames scheme area to reduce flood risk to over 400 homes in Esher. If an individual resilience measures requires HRA, this will be undertaken at the appropriate individual development level.
0203006046	Work with Partners to start building a 8 km flood relief channel alongside the River Thames in the River Thames Scheme area	No Likely significant effect, already consented - provides the commitment to work with Partners to start building a 8 km flood relief channel alongside the River Thames in the River Thames Scheme area. Since the flood relief channels traverse close to South West London Waterbodies SPA/Ramsar site, there is potential for effects from the scheme, but this is an ongoing measure that has already been consented and as such will already have been subject to HRA. The measure is simply a commitment to continue with it.

**Table 18. Screening table showing the Test of Likely Significant Effects results for measures contained within the Thames Flood Risk Management Plan applicable across the Farnborough, Thames (RoFSW) Flood Risk Area**

Measure ID	Measure	Likely Significant Effects on European sites
0209506004	Create a Catchment Plan including flood risk and water management for the Loddon catchment including the Fleet area covering Farnborough in Rectory Road and Sycamore Road	No likely significant effect – this measure provides for the development of a flood risk and water management plan for the Loddon catchment. This measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Moreover, the Loddon catchment is remote from hydrologically sensitive European sites and ultimately drains north to the River Thames
0217106006	Develop a shared action plan of the flood risk management activities and allocation of tasks across all sources of flooding in the area set out by the local flood risk management strategy in Frimley	No Likely significant effect - this measure does not provide for any physical on the ground development, the action plan to be developed will merely allocate tasks to the relevant authorities. As such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0209506007	Investigate potential surface water flood alleviation scheme in Cheyne Way	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Any future flood alleviation scheme will require HRA due to its proximity to the Thames Basin Heaths SPA.
0209506002	Undertake a Flood Alleviation Scheme at Rectory Road and Sycamore Road in Rectory Road and Sycamore Road	No Likely significant effects, already consented – This is an ongoing measure to undertake a Flood Alleviation Scheme at Rectory Road and Sycamore Road in Rectory Road and Sycamore Road to reduce flood risk in the Farnborough. This ongoing scheme has already been consented and as such will already have been subject to HRA.

Measure ID	Measure	Likely Significant Effects on European sites
0209506005	Undertake investigation into B3014 Fleet Road, Cove, Farnborough in B3014 Fleet Road, Cove, Farnborough	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Any future works to support this measure may require a scheme specific HRA.
0203206100	Work in partnership to continue maintenance of designated flood assets and carry out some environmental enhancements in Cove Brook Flood Storage Area (FSA)	No Likely significant effect, already consented - provides the commitment to continue the maintenance of designated flood assets and carry out some enhancement to flood assets in the Cove Brook Field Flood Storage Area (FSA). This ongoing scheme has already been consented and as such will already have been subject to HRA.
0209506008	Work in partnership with local planning authorities to support the implementation of the updated Hampshire Flood and Water Management Strategy in Farnborough	No Likely significant effect – providing a commitment to work in partnership with other local planning authorities to support the implementation of the updated Hampshire Flood and Water Management Strategy in Farnborough will not adversely affect European sites. The Strategy will have already been subject to HRA as part of its development and adoption.

**Table 19. Screening table showing the Test of Likely Significant Effects results for measures contained within the Thames Flood Risk Management Plan applicable across the Five Oak Green, Thames (RoFRS) Flood Risk Area**

Measure ID	Measure	Likely Significant Effects on European sites
0202006015	Carry out a review of legacy assets in Five Oak Green	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0202006016	Carry out specific flood awareness activities through the medway flood partnership and the flood action campaign in Five Oak Green	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0202006013	Follow national planning policy framework and planning practice guidance on flood risk and coastal change in Five Oak Green	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0202006014	Investigate a flood storage area scheme in Five Oak Green	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0202006012	Investigate a property flood resilience scheme in Five Oak Green	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0202006011	Replace the Five Oak Green trash screen to bring the screen in line with new legislation and improve conveyance of water in Five Oak Green	No likely significant effect – this measure provides to replace the Five Oak Green trash screen to bring the screen in line with new legislation and improve conveyance of water in Five Oak Green to reduce and manage overall catchment flood risk in the Five Oak Green. Five Oak Green is not located within proximity to any European sites (the closest being North Downs Woodlands SAC located 18.5km from the Flood Risk Area and Ashdown Forest SAC/SPA located 19.3km from the Flood Risk Area).

**Table 20. Screening table showing the Test of Likely Significant Effects results for measures contained within the Thames Flood Risk Management Plan applicable across the Greater London, Thames (RoFSW) Flood Risk Area**

Measure ID	Measure	Likely Significant Effects on European sites
0288806049	Work with Transport for London, Thames Water and others in Greater London	No likely significant effect – this measure identifies that the Environment Agency will work with Transport for London, Thames Water and others in Greater London to better understand vulnerability and exposure of relevant assets to flooding, disseminating better working practices and embedding relationships through London-wide sharing forums in the Thames River Basin District. This measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0205006011	Provide local groundwater flood risk map linked to conditions that result in flood risk to particular areas in Bexley Borough	No Likely significant effect, already consented - this measure ongoing does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Further, this measure has already been consented.
0205006012	Review potential for area specific groundwater flood warnings based on improved understanding, risk map, and monitoring in Bexley Borough	No Likely significant effect, already consented - this ongoing measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. This ongoing scheme has already been consented and as such will already have been subject to HRA.

Measure ID	Measure	Likely Significant Effects on European sites
0205006013	Seek opportunities to intercept roof runoff into gardens, promote the use of green and permeable gardens, and replace footways with permeable tarmac in Bexley Borough	No Likely significant effect, already consented - this ongoing measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0205006014	Enhance surface water drainage systems and performance of Wyncham Stream, increasing protection to properties within the catchment in Wyncham Stream	No likely significant effect – This measure provides for the enhancement of surface water drainage systems and performance of Wyncham Stream, increasing protection to properties within the catchment in Wyncham Stream to achieve a target of in 70 year return period protection level. The London Borough of Bexley and Bromley are remote from hydrologically sensitive European sites.
0205006015	Review potential for a joint policy with London Borough of Bromley for upstream management and storage opportunities in Wyncham Stream	No Likely significant effect, already consented - this ongoing measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Further any planning document produced will be subject to HRA prior to adoption.
0205006016	Pilot mapping of assets at Hall Place, including mapping watercourses and asset register in Bexley Hall Place	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0205006018	Provide upstream storage capacity to address surface water issues on Battle Road and Pembroke Road in Erith	No Likely significant effects, already consented – this ongoing measure provides upstream storage capacity to address surface water issues on Battle Road and Pembroke Road in Erith to improve severe surface water flooding issues in this area. This ongoing scheme has already been consented and as such will already have been subject to HRA.



Measure ID	Measure	Likely Significant Effects on European sites
0206106020	Prepare communications plan for groundwater flooding in Bromley Borough	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0206106021	Seek storm water storage opportunities within highway works in Bromley Borough	No Likely significant effect, already consented - this ongoing measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0206106022	Seek storm water storage opportunities in open spaces in Bromley Borough	No Likely significant effect - this measure does not provide for any physical on the ground development, but merely to seek storm water storage opportunities. As such it will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0206106023	Commission lake siltation surveys in Bromley Borough	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0206106024	Promote local surface water management among residents in Bromley Borough	No Likely significant effect - this measure does not provide for any physical on the ground development, but promotes surface water management amongst residents. As such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0206106025	Conduct surveys to assess the risk of blockages within ordinary watercourses and culverts in Bromley Borough	No Likely significant effect – it is unlikely that surveys of ordinary watercourses within Bromley Borough would provide a linking impact pathway to a European site. Further this measure is carried over from FRMP1 and is already being implemented so would have been subject to HRA at the FRMP1 stage and/ or the survey development stage.
0206106026	Survey historic groundwater flooding events and assess the potential future impact of these events in Bromley Borough	No Likely significant effect, already consented – This is an ongoing measure. It is unlikely that surveys of historic groundwater flooding events within Bromley Borough would provide a linking impact pathway to a European site. Further this measure is carried over from FRMP1 and is already being implemented so would have been subject to HRA at the FRMP1 stage and/ or the survey development stage.
0206106027	Review existing groundwater monitoring stations and consider possibility of adding a local monitoring borehole in Bromley Borough	No Likely significant effects, already consented – This is an ongoing measure to review existing groundwater monitoring stations and consider possibility of adding a local monitoring borehole in Bromley Borough to improve groundwater flood warning capability. This measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. This ongoing measure has already been consented. Further any planning document produced will be subject to HRA prior to adoption.
0211206030	Conduct a feasibility study for a flood alleviation scheme to reduce flood risk along Dalberg Road in St Matthews Estate	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0211206032	Assess the feasibility of installing natural sustainable urban drainage systems within council owned and managed open spaces within parks and estates in Lambeth Borough	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0211206033	Identify the highways that generate the most significant surface water flows to feedback into the carriageway and footway resurfacing programmes in Lambeth Borough	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Further this measure is ongoing so will already have been subject to HRA scrutiny if required.
0211206034	Publish guidance for residents on retrofitting sustainable drainage systems and depaving in Lambeth Borough	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0211206035	Produce mapping that identifies opportunities to implement sustainable drainage for housing estates in Lambeth Borough	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0211206036	Produce mapping that identifies opportunities to implement sustainable drainage for schools in Lambeth Borough	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0211706037	Improve and formalise the understanding of groundwater flooding in Lewisham	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0211706039	Conduct an asset performance review of all highway drainage and culverts in Lewisham	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0211706040	Review and prioritise opportunities to minimise run-off from areas of hardstanding in Lewisham	No Likely significant effect, already consented – this ongoing measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0211706041	Conduct a flood preparedness study in Lewisham	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0211706042	Deliver a capital flood alleviation scheme in Beckenham Place Park	No likely significant effect - this measure provides for the delivery of a capital flood alleviation scheme in Beckenham Place Park to reduce fluvial flood risk in the Greater London. Due to the relative remoteness of Beckenham Place Park from European sites it is unlikely that the detailed scheme will result in a linking impact pathway to a European site.
0216306044	Implement a pre-occupation planning condition to verify drainage in Southwark	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0216306045	Carry out public engagement to encourage update of small-scale sustainable drainage systems in Southwark	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0216306046	Undertake a new surface water management plan to inform flood risk management in the future in Southwark	No Likely significant effects – This measure is to undertake a new surface water management plan to inform flood risk management in the future in Southwark to improve understanding of surface water flood risk and developing targeted interventions. This measure does not provide for any physical on the ground development, and Southwark is remote from European sites.
0216306047	Assess the surface water capacity of public sewer networks in high risk critical drainage areas in Southwark	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0216306048	Conduct an assessment of critical infrastructure resilience to surface water flooding such as stations, utilities, hospitals, schools and care homes in Southwark	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0216306049	Improve maintenance of surface water drainage networks by ensuring gullies and other storm water management structures are functional in Southwark	No likely significant effect - This measure provides improved maintenance of existing surface water drainage networks by ensuring gullies and other storm water management structures are functional in Southwark to reduce risk of surface water flooding and enhance the environment. It is likely that any maintenance works will have minimal environmental impact. Due to the relative remoteness of Southwark from European sites it is unlikely that any detailed scheme will result in a linking impact pathway to a European site.

Measure ID	Measure	Likely Significant Effects on European sites
0216306050	Create a surface water flood alleviation scheme in Peckham Rye	<p>No likely significant effect</p> <p>This measure provides for the creation of a surface water flood alleviation scheme in Peckham Rye to reduce risk of surface water flooding and enhance the environment in the Greater London. Due to the relative remoteness of Peckham Rye from European sites it is unlikely that the detailed scheme will result in a linking impact pathway to a European site.</p>
0216306051	Create a surface water flood alleviation scheme in Central Camberwell	<p>No likely significant effect</p> <p>This measure provides for the creation of a surface water flood alleviation scheme in Central Camberwell to reduce risk of surface water flooding and enhance the environment in the Greater London. Due to the relative remoteness of Camberwell from European sites it is unlikely that the detailed scheme will result in a linking impact pathway to a European site.</p>
0216306052	Create a surface water flood alleviation scheme in North Peckham	<p>No likely significant effect</p> <p>This measure provides for the creation of a surface water flood alleviation scheme in North Peckham to reduce risk of surface water flooding and enhance the environment in the Greater London. Due to the relative remoteness of North Peckham from European sites it is unlikely that the detailed scheme will result in a linking impact pathway to a European site.</p>

Measure ID	Measure	Likely Significant Effects on European sites
0216306053	Create a surface water flood alleviation scheme in West Camberwell	<p>No likely significant effect</p> <p>This measure provides for the creation of a surface water flood alleviation scheme in West Camberwell to reduce risk of surface water flooding and enhance the environment in the Greater London. Due to the relative remoteness of Camberwell from European sites it is unlikely that the detailed scheme will result in a linking impact pathway to a European site.</p>
0216306054	Support Lambeth Council with measures to protect the railway line west of Denmark Hill Station from surface water flooding in Ruskin Park	<p>No Likely significant effect</p> <p>This measure is to support Lambeth Council with measures to protect the railway line west of Denmark Hill Station from surface water flooding in Ruskin Park to reduce risk of surface water flooding and enhance the environment. However, Lambeth is remote from sensitive European sites</p>
0212306003	Develop and implement a new Local Flood Risk Management Strategy and action plan which delivers the objectives of the appropriate Environment Agency Catchment Action Plan in Merton	<p>No Likely significant effect, already consented - this ongoing measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Moreover, Merton is remote from European sites</p>
0212306004	Refresh and publish a revised Strategic Flood Risk Assessment in an online map format to engage more effectively with developers and the public in understanding existing and future flood risk in Merton	<p>No Likely significant effect, already consented - this ongoing measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Moreover Merton is remote from hydrologically sensitive European sites</p>

Measure ID	Measure	Likely Significant Effects on European sites
0214706008	Continue to hold quarterly flood group meetings in Richmond	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0214706009	Work together with the Environment Agency to understand the fluvial and tidal interactions and the operation of the Thames Barrier in Richmond	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0214706012	Look into the potential to landscape Marble Hill Park in Richmond	No Likely significant effect - this measure does not provide for any physical on the ground development, merely to investigate the potential of a possible future scheme, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0218306014	Review opportunities for collaborative working through the internal flood group meetings and raise opportunities to the South West London Flood Group in Wandsworth	No Likely significant effect, already consented – this ongoing measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. This ongoing measure has already been consented and as such will already have been subject to HRA.



Measure ID	Measure	Likely Significant Effects on European sites
0214706015	Review and update the significant definition within the asset register to ensure it reflects potential future risks in Richmond	No Likely significant effects – this measure is to review and update the significant definition within the asset register to ensure it reflects potential future risks in Richmond to identify assets with a significant impact on flood risk. Assets with the greatest significance will have site-specific maintenance plans agreed with the landowner. This measure does not provide for any physical on the ground development, and Richmond is remote from hydrologically sensitive European sites
0218306016	Review and update the significant definition within the asset register to ensure it reflects potential future risks in Wandsworth	No Likely significant effects – This measure is to review and update the significant definition within the asset register to ensure it reflects potential future risks in Wandsworth to identify assets with a significant impact on flood risk. Assets with the greatest significance will have site-specific maintenance plans agreed with the landowner. This measure does not provide for any physical on the ground development, and Wandsworth is remote from hydrologically sensitive European sites.
0214706021	Work with Local Planning Authority colleagues to implement strengthened policy and guidance in Richmond	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Further any planning document produced will be subject to HRA prior to adoption.
0218306022	Work with Local Planning Authority colleagues to implement strengthened policy and guidance in Wandsworth	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Further any planning document produced will be subject to HRA prior to adoption.

Measure ID	Measure	Likely Significant Effects on European sites
0214706023	Identify key 'at risk' communities, develop resources in Richmond	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0218306024	Identify key 'at risk' communities, develop resources in Wandsworth	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0217206027	Build up a prioritised evidence base of at risk infrastructure, of global, national, regional and local importance, from current and future flooding sources through the use of flood risk mapping in London Borough of Sutton	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0217206030	Work with Local Planning Authority colleagues to implement strengthened policy and guidance to further promote sustainable drainage systems within all future development in London Borough of Sutton	No Likely significant effect, already consented - this ongoing measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Further any planning document produced will be subject to HRA prior to adoption.
0217206031	Continue work in the Wandle Hackbridge catchment, formerly critical drainage area 33 Hackbridge Town, to progress with a suitable flood alleviation scheme in London Borough of Sutton	No Likely significant effect, already consented and ongoing construction –provides a commitment to continue work within the Wandle Wallington catchment (formerly critical drainage area 33 Hackbridge Town). This measure is carried over from the FRMP1; it is ongoing and as such has already been subject to HRA. Further, the detailed scheme would have been subject to HRA as part of the consent process

Measure ID	Measure	Likely Significant Effects on European sites
0217206032	Continue investigation work in part of the Wallington Carshalton and Wandle Wallington catchments, formerly critical drainage area 29 and 30, to identify feasible flood alleviation schemes in London Borough of Sutton	No Likely significant effect, already consented –provides a commitment to continue investigation work within the Wallington Carshalton and Wandle Wallington catchments. This measure is carried over from the FRMP1; it is ongoing and as such has already been subject to HRA. Further, the detailed scheme would have been subject to HRA as part of the consent process
0217206033	Continue targeted engagement in areas where sustainable drainage systems are planned to educate local communities on their multiple benefits in London Borough of Sutton	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0210906034	Identify communities most at risk of flooding within the Borough and identify ways to manage their risk in the Royal Borough of Kingston upon Thames	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0210906035	Work with flood asset owners and riparian owners to deliver a programme of maintenance to improve performance in the Royal Borough of Kingston upon Thames	No Likely significant effect, already consented - this ongoing measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0210906036	Review Kingston web pages to ensure they include all relevant information on flood risk for the borough and links to external websites where suitable in the Royal Borough of Kingston upon Thames	No Likely significant effects, already consented – This is an ongoing measure to review Kingston web pages to ensure they include all relevant information on flood risk for the borough and links to external websites where suitable in the Royal Borough of Kingston upon Thames to support the understanding of the nature of flood risk and the significant causes of flooding. This measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. This ongoing scheme has already been consented.
0210906037	Set up a web reporting facility to enable members of the public to report flooding incidents online in the Royal Borough of Kingston upon Thames	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0210906038	Consolidate records of flooding to compile a list of local areas at risk in the Royal Borough of Kingston upon Thames	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0210906039	Produce a flood risk management communications plan and specific community emergency plans in the Royal Borough of Kingston upon Thames	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Further any planning document produced will be subject to HRA as part of its development and adoption.
0210906040	Undertake catchment studies and review opportunities for collaborative working with other risk management authorities in the Royal Borough of Kingston upon Thames	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0210906041	Provide training and promote knowledge sharing amongst individuals and departments involved in the planning process in the Royal Borough of Kingston upon Thames	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0207506043	Develop a programme to assess the effectiveness and working conditions of Croydon's existing drainage infrastructure and put in place a robust maintenance and renewal programme that will ensure that the risk of flooding is reduced and better managed in Croydon	No Likely significant effect – This measure identifies that London Borough of Croydon will develop a programme to assess the effectiveness and working conditions of all the Council's existing drainage infrastructure and put in place a robust maintenance and renewal programme that will ensure that the risk of flooding is reduced and better managed in Croydon to reduce flood risk. This measure in itself does not provide for any potentially links to European sites and Sutton is remote from hydrologically sensitive European sites
0204506002	Develop a collaborative scheme alongside the Environment Agency in the Oval Road / Ballards Road area	No Likely significant effect – Oval Road/ Ballards Road is located more than 10km from Epping Forest SAC. Due to the fact this location is isolated from European sites it is unlikely that European sites could be affected by this measure.
0204506003	Work together with the Central Park regeneration project to deliver green infrastructure and flood alleviation scheme in Heathway Surface Water Flood Attenuation Scheme	No likely significant effect – This measure provides for collaborative working to deliver the Central Park regeneration project to deliver green infrastructure and flood alleviation scheme in Heathway Surface Water Flood Attenuation Scheme to create green infrastructure and a sustainable flood storage space. Due to the relative remoteness of Heathway Surface Water Flood Attenuation Scheme from any European sites it is unlikely that the detailed scheme will result in a linking impact pathway to a European site.

Measure ID	Measure	Likely Significant Effects on European sites
0204506004	Commission a scoping study in Parsloes Park	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0204506005	Commission a surface and fluvial integrated model in the Borough of Barking and Dagenham	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0204506006	Work alongside Thames Water to reinstate a surface water drain whilst diverting a foul-only sewerage system to Beckton wastewater treatment works in Barking Town	No likely significant effect – This measure provides for working alongside Thames Water to reinstate a surface water drain whilst diverting a foul-only sewerage system to Beckton wastewater treatment works in Barking Town to highlight green infrastructure within the urban scenescape and focus on developing beneficial green infrastructure. Due to the relative remoteness of Barking Town from any European sites it is unlikely that the detailed scheme will result in a linking impact pathway to a European site.
0204506008	Work alongside key riparian owners to develop a de-culverting strategy in council-owned parks, including Parsloes & Pondfield	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Any strategy produced as a result of this measure will be subject to HRA as part of its development and adoption.
0204606002	Organise one community event in London Borough of Barnet	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0204606003	Carry out a strategic assessment in London Borough of Barnet	No Likely significant effect but down-the-line HRA may be required. - - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. It may be that as part of the appraisal HRA is required of the individual options, however, no HRA is required at the FRMP stage due to the lack of details available.
0204606004	Undertake option appraisal studies for the top six priority Critical Drainage Areas (subject to funding) in London Borough of Barnet	No Likely significant effect, already consented - this ongoing measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites
0209906012	Carry out flood modelling in Havering Park Critical Drainage Area	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0204606006	Establish and improve relations with key stakeholders to work together in London Borough of Barnet	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0204606007	Aim to reduce flood risk in new developments by reviewing and improving the current lead local flood authority planning application review process in London Borough of Barnet	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0204606009	Investigate potential locations, appraise nature-based solution options within Critical Drainage Area assessments (or explore other opportunities) in London Borough of Barnet	No Likely significant effect - this measure does not provide for any physical on the ground development merely to investigate locations and appraise solutions, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0205806002	Carry out feasibility modelling in Woodcock Park	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0205806003	Carry out critical drainage area flood modelling in the Brent London Borough	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0206606002	Update the Flood Risk Management Strategy in Camden	No Likely significant effect, already consented - this ongoing measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Further any planning document produced will be subject to HRA prior to adoption.
0206606003	Use sustainable drainage opportunity mapping to promote and assist relevant Council services in identifying, building and operating such schemes in Camden	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0206606004	Work with partners to apply for capital and research funding, including the Flood and Coastal Resilience Innovation Programme, in Camden	No Likely significant effect, already consented - this ongoing measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.



Measure ID	Measure	Likely Significant Effects on European sites
0206606005	Provide advice to the local planning authority, in response to consultations about proposed development in areas at risk of flooding in Camden	No Likely significant effect, already consented - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Further, this measure has already been consented.
0206606006	Support Council services in their development of relevant policy and activities in Camden	No Likely significant effect, already consented – this ongoing measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0206606007	Continue to publish online flood risk advice and work with the Camden Climate Change Alliance in Camden	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0206606008	Contribute to the Multi-Agency Flood Plan in Camden	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Further any planning document will be subject to HRA prior to adoption.
0206606009	Seek opportunities to enhance and update flood risk models and mapping in Camden	No Likely significant effect, already consented – this ongoing measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0207006002	Have procedures in place to maximise the use of sustainable drainage systems, using the hierarchy in City of London	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0207006004	Have reviewed its Strategic Flood Risk Assessment in City of London	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0207006005	Have identified all historic buildings assets in the Square Mile at risk of flooding and will work to encourage building owners in City of London	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0207006006	Have continued to maintain a register of flood defence assets, including information of their condition where appropriate in City of London	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0207006007	Have reviewed opportunities to improve the flood resilience in residential properties in Square Mile	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0207006008	Have identified sensitive properties at risk of water main burst and sewer surcharge in City of London	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0207006009	Have shared information on assets at risk of flooding and encouraged owners in City of London	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0207006011	Have collated guidance specific to retrofitting flood resistance and resilience measures to commercial buildings in City of London (including those in Farringdon Street, Pauls Walk and Victoria Embankment)	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0207006012	Have reviewed and updated the Multi Agency Flood Plan in City of London	No Likely significant effect - this measure is to review and update the Multi Agency Flood Plan in City of London. This measure is desk based and ongoing and the City of London is remote from hydrologically sensitive European sites
0207006013	Explore innovative ways to engage with our workers, residents, visitors and learners in the City	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0218206005	Carry out a scoping study in the Borough of Waltham Forest	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0209906013	Carry out an assessment of potential desilting and ditch clearing works in the West Mardyke Main River	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0209906008	Carry out flood modelling of main river and adjacent educational facility in the Harold Hill Critical Drainage Area	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0218206010	Commission, design and construct the South Chingford flood mitigation projects in Chingford	No Likely significant effect – This measure identifies that by 2024, Waltham Forest Lead Local Flood Authority will commission, design and construct the South Chingford flood mitigation projects in Chingford to reduce flood risk as a part of the Thames Regional Flood and Coastal Committees 2021-2027 programme in the Greater London, Thames Flood Risk Area. However, Chingford is remote from hydrologically sensitive European sites
0209206009	Complete a study to identify areas of groundwater flood risk in Hackney	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0209206002	Complete an update of the Local Flood Risk Management Strategy in Hackney	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Moreover, Hackney is remote from hydrologically sensitive European sites
0209206003	Complete an update of the Multi-Agency Flood Response Plan in Hackney	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Moreover, Hackney is remote from hydrologically sensitive European sites

Measure ID	Measure	Likely Significant Effects on European sites
0211206030	Conduct an assessment of critical infrastructure resilience to surface water flooding, for stations, utilities, hospitals, schools and care homes in Southwark	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0218206009	Construct a wetland in Chestnuts Showground	No Likely significant effect, but down-the-line HRA may be required – Chestnuts Showground is located within proximity to the Lee Valley SPA at Walthamstow Wetlands and also Epping Forest SAC. There could be potential for the scheme to hydrologically affect the SPA and SAC, however, the Walthamstow Wetlands is hydrologically disconnected from the surrounding ground and surface water networks as they are lined reservoirs that are fed by pumped water as they are operational Thames Water Reservoirs. Sufficient detail is not available within the FRMP to undertake HRA of this measure. Once sufficient detail is available, a scheme level HRA should be undertaken to assess any potential effects of the scheme upon Epping Forest SAC and confirm potential effects upon the Lee Valley SPA. This will be accompanied by a Construction Environment Management Plan (CEMP) if necessary. Any scheme could have potentially beneficial effects on the SPA.
0209706007	Continue to develop planning policies that align with flooding and the protection of infrastructure and businesses to protect economic continuity in Harrow	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Further, any planning policies will be subject to HRA prior to them being adopted.

Measure ID	Measure	Likely Significant Effects on European sites
0210606007	Continue to explore innovative ways of communication with the public in the borough of Kensington and Chelsea	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0210606004	Continue to monitor and liaise with key partners in and for Counters Creek	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0208406005	Continue to work in partnership with external bodies to manage flood risk by encouraging and promoting retro-fitting through natural flood management in Ealing	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0209206008	Coordinate the delivery of the works identified in the sustainable drainage systems programme in Hackney	No Likely significant effect - this measure does not provide for any physical on the ground development, merely the co-ordination of previously identified in the sustainable drainage system programme in Hackney. This measure will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0218206003	Create a Groundwater Guidance Policy Report in the Borough	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0218806002	Create a strategy targeting sustainable urban drainage systems development in the borough	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Moreover, Hackney is remote from European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0218806005	Create a sustainable urban drainage systems technical guidance note for development in to an environmental inclusivity supplementary planning document	No Likely significant effect - this measure does not provide for any physical on the ground development, merely a technical guidance note, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0208706003	Deliver a programme of sustainable drainage, wetland and river restoration schemes in urban areas creating better places for people in Enfield	No Likely significant effects, but down-the-line HRA required – This is an ongoing measure to deliver a programme of sustainable drainage, wetland and river restoration schemes in urban areas creating better places for people in Enfield to reduce flood risk in the Greater London. The Lee Valley SPA/Ramsar site forms the eastern boundary of Enfield and this measure could be positive in terms of enhancement of functionally-linked land elsewhere in the Lee Valley but each scheme will need assessing on its own merits depending on location. In line with the guidance quoted in paragraph 2.27, down-the-line assessment will be required as further details emerge regarding what will be done to deliver this measure. This will be accompanied by a Construction Environment Management Plan (CEMP) if necessary.
0212706003	Deliver a sustainable drainage system scheme on the capital programme using partnership funding in Newham	No Likely significant effect – this measure provides for the delivery of a sustainable drainage system scheme on the capital programme using partnership funding in Newham to reduce flood risk to vulnerable communities in the Greater London. Due to the relative remoteness of Newham from European sites it is unlikely that the detailed scheme will result in a linking impact pathway to a European site.

Measure ID	Measure	Likely Significant Effects on European sites
0217806003	Deliver sustainable urban drainage systems in Tower Hamlets	No Likely significant effect – this measure provides for the delivery of a sustainable drainage system in Tower Hamlets to help mitigate localised flooding caused by drainage system being at capacity in the Greater London. Due to the relative remoteness of Tower Hamlets from European sites it is unlikely that the detailed scheme will result in a linking impact pathway to a European site.
0209206006	Deliver the flood risk management schemes outlined in the programme in Hackney	No Likely significant effect – this measure provides for the delivery of the flood risk management schemes outlined in the programme in Hackney to reduce the risk of surface water flooding in high risk areas in the Greater London. Due to the relative remoteness of Hackney from European sites it is unlikely that the detailed schemes will result in a linking impact pathway to a European site.
0209606003	Design, build and manage Natural Flood Management scheme in Chestnut's Park, St Ann's, London Borough of Haringey	No Likely significant effect, but down-the-line HRA may be required – Chestnut's Park is located c. 1.7km from the Lee Valley SPA at Walthamstow Wetlands. There could be potential for the scheme to hydrologically affect the SPA, however, the Walthamstow Wetlands is hydrologically disconnected from the surrounding ground and surface water networks as they are lined reservoirs that are fed by pumped water as they are operational Thames Water Reservoirs. Sufficient detail is not available within the FRMP to undertake HRA of this measure. Notwithstanding this, a scheme level HRA should be undertaken to confirm potential effects upon the Lee Valley SPA. This will be accompanied by a Construction Environment Management Plan (CEMP) if necessary.



Measure ID	Measure	Likely Significant Effects on European sites
0209606026	Design, build and manage Natural Flood Management scheme in Cold Fall Wood, Fortis Green, London Borough of Haringey	No Likely significant effect – Cold Fall Wood is located c.6km from the Lee Valley SPA at Walthamstow Wetlands. However, the Walthamstow Wetlands is hydrologically disconnected from the surrounding ground and surface water networks as they are lined reservoirs that are fed by pumped water as they are operational Thames Water Reservoirs.
0209606002	Design, build and manage Natural Flood Management scheme in Queens Wood, Muswell Hill, London Borough of Haringey	No Likely significant effect – Cold Fall Wood is located c.4km from the Lee Valley SPA at Walthamstow Wetlands. However, the Walthamstow Wetlands is hydrologically disconnected from the surrounding ground and surface water networks as they are lined reservoirs that are fed by pumped water as they are operational Thames Water Reservoirs.
0209606011	Develop a Flood Alleviation Scheme in Cross Lanes, Hornsey, London Borough of Haringey	No Likely significant effect – Cross Lanes is located c.3km from the Lee Valley SPA at Walthamstow Wetlands. However, the Walthamstow Wetlands is hydrologically disconnected from the surrounding ground and surface water networks as they are lined reservoirs that are fed by pumped water as they are operational Thames Water Reservoirs.
0218206002	Develop a Proactive Maintenance Performance Report in the Borough	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0209606007	Develop a Sustainable Drainage System Scheme in Crescent Gardens, Wood Green, London Borough of Haringey	No Likely significant effects, already consented – This is an ongoing measure to develop a Sustainable Drainage System Scheme in Crescent Gardens, Wood Green. This ongoing scheme has already been consented and as such will already have been subject to HRA.
0209606015	Develop a Sustainable Drainage System Scheme in Crouch End Liveable Neighbourhood, Crouch End, London Borough of Haringey	No Likely significant effect – Crouch End Liveable Neighbourhood is located approximately 5km from the Lee Valley SPA at Walthamstow Wetlands. However, the Walthamstow Wetlands is hydrologically disconnected from the surrounding ground and surface water networks as they are lined reservoirs that are fed by pumped water as they are operational Thames Water Reservoirs.
0209606016	Develop a Sustainable Drainage System Scheme in Down Lane Park, Tottenham Hale, London Borough of Haringey	No Likely significant effect, but down-the-line HRA may be required – These areas are located approximately 0.5km from the Lee Valley SPA at Walthamstow Wetlands. The Walthamstow Wetlands is hydrologically disconnected from the surrounding ground and surface water networks as they are lined reservoirs that are fed by pumped water as they are operational Thames Water Reservoirs. However, given the proximity of works to the SPA/Ramsar site disturbance during construction should be considered depending on the exact location and nature of works. In line with the guidance quoted in paragraph 2.27, down-the-line assessment will be required as further details emerge regarding what will be done to deliver this measure. This will be accompanied by a Construction Environment Management Plan (CEMP) if necessary.

Measure ID	Measure	Likely Significant Effects on European sites
0209606020	Develop a Sustainable Drainage System Scheme in Duckett's Common, Haringey, London Borough of Haringey	No Likely significant effect – Duckett's Common is located approximately 2km from the Lee Valley SPA at Walthamstow Wetlands. However, the Walthamstow Wetlands is hydrologically disconnected from the surrounding ground and surface water networks as they are lined reservoirs that are fed by pumped water as they are operational Thames Water Reservoirs.
0209606009	Develop a Sustainable Drainage System Scheme in Ferry Lane, Tottenham Hale, London Borough of Haringey	No Likely significant effects, already consented – This is an ongoing measure to develop a Sustainable Drainage System Scheme in Ferry Lane. This ongoing scheme has already been consented and as such will already have been subject to HRA.
0209606004	Develop a Sustainable Drainage System Scheme in Fryatt/Jellicoe Road, White Hart Lane, London Borough of Haringey	No Likely significant effect – Fryett/Jellicoe Road, White Hart Lane is located approximately 2km from the Lee Valley SPA at Walthamstow Wetlands. However, the Walthamstow Wetlands is hydrologically disconnected from the surrounding ground and surface water networks as they are lined reservoirs that are fed by pumped water as they are operational Thames Water Reservoirs.
0209606024	Develop a Sustainable Drainage System Scheme in Lordship Ground, West Green , London Borough of Haringey	No Likely significant effect – Lordship Ground, West Green is located approximately 2km from the Lee Valley SPA at Walthamstow Wetlands. However, the Walthamstow Wetlands is hydrologically disconnected from the surrounding ground and surface water networks as they are lined reservoirs that are fed by pumped water as they are operational Thames Water Reservoirs.

Measure ID	Measure	Likely Significant Effects on European sites
0209606010	Develop a Sustainable Drainage System Scheme in Mayes Road, Wood Green, London Borough of Haringey	No Likely significant effects, already consented – This is an ongoing measure to develop a Sustainable Drainage System Scheme in Mayes Road, Wood Green. This ongoing scheme has already been consented and as such will already have been subject to HRA.
0209606022	Develop a Sustainable Drainage System Scheme in Muswell Hill, London Borough of Haringey	No Likely significant effect – Muswell Hill is located approximately 5km from the Lee Valley SPA at Walthamstow Wetlands. However, the Walthamstow Wetlands is hydrologically disconnected from the surrounding ground and surface water networks as they are lined reservoirs that are fed by pumped water as they are operational Thames Water Reservoirs.
0209606018	Develop a Sustainable Drainage System Scheme in Priory Park, Muswell Hill, London Borough of Haringey	No Likely significant effect – Muswell Hill is located approximately 5km from the Lee Valley SPA at Walthamstow Wetlands. However, the Walthamstow Wetlands is hydrologically disconnected from the surrounding ground and surface water networks as they are lined reservoirs that are fed by pumped water as they are operational Thames Water Reservoirs.
0209606008	Develop a Sustainable Drainage System Scheme in Victoria Crescent, Tottenham Green, London Borough of Haringey	No Likely significant effects, already consented – This is an ongoing measure to develop a Sustainable Drainage System Scheme in Victoria Crescent. This ongoing scheme has already been consented and as such will already have been subject to HRA.

Measure ID	Measure	Likely Significant Effects on European sites
0209606013	Develop a Sustainable Drainage System Scheme in White Hart Lane Recreation Ground, Woodside, London Borough of Haringey	No Likely significant effect - White Hart Lane Recreation Ground is located approximately 1km from the Lee Valley SPA at Walthamstow Wetlands. However, the Walthamstow Wetlands is hydrologically disconnected from the surrounding ground and surface water networks as they are lined reservoirs that are fed by pumped water as they are operational Thames Water Reservoirs.
0209606017	Develop a Sustainable Drainage System Scheme in Wood Green Public Realm Project, Wood Green, London Borough of Haringey	No Likely significant effect – Wood Green is located approximately 3km from the Lee Valley SPA at Walthamstow Wetlands. However, the Walthamstow Wetlands is hydrologically disconnected from the surrounding ground and surface water networks as they are lined reservoirs that are fed by pumped water as they are operational Thames Water Reservoirs.
0212306007	Develop a joint engagement strategy with other Risk Management Authorities to target communities at risk of flooding to help them understand respective roles and responsibilities and what to do in a flood in Merton	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Moreover, Merton is remote from hydrologically sensitive European sites
0209606012	Develop a minor Sustainable Drainage System Scheme in Adams Road, West Green, London Borough of Haringey	No Likely significant effect - Adams Road is located approximately 2km from the Lee Valley SPA at Walthamstow Wetlands. However, the Walthamstow Wetlands is hydrologically disconnected from the surrounding ground and surface water networks as they are lined reservoirs that are fed by pumped water as they are operational Thames Water Reservoirs.

Measure ID	Measure	Likely Significant Effects on European sites
0209606006	Develop a minor Sustainable Drainage System Scheme in Blaydon Walk / Willoughby Park Road, Northumberland Park, London Borough of Haringey	No Likely significant effects, already consented – This is an ongoing measure to develop a Sustainable Drainage System Scheme in Victoria Crescent. This ongoing scheme has already been consented and as such will already have been subject to HRA.
0209606019	Develop a minor Sustainable Drainage System Scheme in Bury Road, Noel Park, Wood Green, London Borough of Haringey	No Likely significant effect - Adams Road is located approximately 3km from the Lee Valley SPA at Walthamstow Wetlands. However, the Walthamstow Wetlands is hydrologically disconnected from the surrounding ground and surface water networks as they are lined reservoirs that are fed by pumped water as they are operational Thames Water Reservoirs.
0209606023	Develop a minor Sustainable Drainage System Scheme in Granville Road, Woodside, London Borough of Haringey	No Likely significant effect – Granville Road is located approximately 2km from the Lee Valley SPA at Walthamstow Wetlands. However, the Walthamstow Wetlands is hydrologically disconnected from the surrounding ground and surface water networks as they are lined reservoirs that are fed by pumped water as they are operational Thames Water Reservoirs.
0209606025	Develop a minor Sustainable Drainage System Scheme in Meadow Orchard, Park Road, Crouch End, London Borough of Haringey	No Likely significant effect – Meadow Orchard, Park Road is located approximately 4km from the Lee Valley SPA at Walthamstow Wetlands. However, the Walthamstow Wetlands is hydrologically disconnected from the surrounding ground and surface water networks as they are lined reservoirs that are fed by pumped water as they are operational Thames Water Reservoirs.

Measure ID	Measure	Likely Significant Effects on European sites
0209606014	Develop a minor Sustainable Drainage System Scheme in Tottenham Hale Public Realm, Tottenham Hale, London Borough of Haringey	No Likely significant effect, but down-the-line HRA may be required – Tottenham Hale Public Realm is located within 500m of the Lee Valley SPA at Walthamstow Wetlands (dependant on the exact location of the measure this could be immediately adjacent). The Walthamstow Wetlands is hydrologically disconnected from the surrounding ground and surface water networks as they are lined reservoirs that are fed by pumped water as they are operational Thames Water Reservoirs. However, given the potential proximity of the scheme potential for disturbance of SPA birds should be considered in development of any scheme. In line with the guidance quoted in paragraph 2.27, down-the-line assessment will be required as further details emerge regarding what will be done to deliver this measure. This will be accompanied by a Construction Environment Management Plan (CEMP) if necessary.
0209606021	Develop a minor Sustainable Drainage System Scheme in Warkworth Road, White Heart Lane, Tottenham, London Borough of Haringey	No Likely significant effect, but down-the-line HRA may be required – Warkworth Road, White Heart Lane is located c. 2km from the Lee Valley SPA at Walthamstow Wetlands (dependant on the exact location of the measure this could be immediately adjacent). Walthamstow Wetlands is hydrologically disconnected from the surrounding ground and surface water networks as they are lined reservoirs that are fed by pumped water as they are operational Thames Water Reservoirs. However, given the potential proximity of the scheme potential for disturbance of SPA birds should be considered in development of any scheme. In line with the guidance quoted in paragraph 2.27, down-the-line assessment will be required as further details emerge regarding what will be done to deliver this measure. This will be accompanied by a Construction Environment Management Plan (CEMP) if necessary.

Measure ID	Measure	Likely Significant Effects on European sites
0209606005	Develop a minor Sustainable Drainage System Scheme in the Lindales and Cooperage Close, Northumberland Park, London Borough of Haringey	No Likely significant effects, already consented – This is an ongoing measure to develop a Sustainable Drainage System Scheme in Victoria Crescent. This ongoing scheme has already been consented and as such will already have been subject to HRA.
0210206002	Develop a new local flood risk management strategy action plan in Hounslow	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0209206004	Develop a programme of flood risk management schemes in Hackney	No Likely significant effect - this measure is to develop a programme of works to identify possible sites for sustainable drainage systems in Hackney to reduce surface water flood risk to schools and housing estates in the Greater London. It does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0209206007	Develop a programme of works to identify possible sites for sustainable drainage systems in Hackney	No Likely significant effect - this measure is to develop a programme of works to identify possible sites for sustainable drainage systems in Hackney to reduce surface water flood risk to schools and housing estates in the Greater London. It does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.



Measure ID	Measure	Likely Significant Effects on European sites
0209406005	Develop an internal policy in the London Borough of Hammersmith and Fulham	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Moreover, Hammersmith is remote from hydrologically sensitive European sites.
0207506045	Develop and implement an Action Plan that will help communities at risk of flooding to understand the potential impact on their lives and livelihoods, and to encourage them to take action to protect their properties and/or make them resilient to flooding in Croydon	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0210206007	Develop and maintain a flood incident database in Hounslow	No Likely significant effects, already consented – This is an ongoing measure to maintain a flood incident database that would have already been subject to a test of Likely Significant Effects. This measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0208406002	Develop and maintain relationships to share knowledge of flood risk events and mitigation with key risk management authorities on flood projects in Ealing	No Likely significant effect, already consented - this is an ongoing measure to develop and maintain relationships that would have already been subject to a test of Likely Significant Effects. This measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0211206029	Develop and publish a fully integrated catchment model of the entire borough and wider hydraulic catchment in Lambeth Borough	No Likely significant effect, already consented - this is an ongoing measure to develop and publish a fully integrated catchment model of the entire borough and wider hydraulic catchment in Lambeth Borough to provide a baseline assessment of the boroughs risk of flooding from surface water and the combined sewer network and aim to publish a more up to date hydraulic model of Lambeth on the national risk of flooding from surface water mapping in the Greater London, that would have already been subject to a test of Likely Significant Effects. This measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0204606005	Develop business cases in London Borough of Barnet to deliver at least two Critical Drainage Area schemes on ground (subject to funding)	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0205006019	Develop closer partnership working arrangements for improving the maintenance of the main river and ordinary watercourse network in upper and lower Belvedere	No Likely significant effect, already consented - this is an ongoing measure to develop closer partnership working arrangements for improving the maintenance of the main river and ordinary watercourse network in upper and lower Belvedere to improve existing storage capacities within the main river and ordinary watercourse to reduce flood risk that would have already been subject to a test of Likely Significant Effects. This measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0210106011	Develop improved riparian ownership awareness in Hillingdon	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0208406007	Develop local sustainable urban drainage guidance to feed into highway and local development schemes to steer towards green infrastructure in Ealing	No Likely significant effect, already consented - this is an ongoing measure to develop local sustainable urban drainage guidance to feed into highway and local development schemes to steer towards green infrastructure in Ealing to promote and encourage sustainable urban drainage schemes to increase use of permeable paving, green infrastructure and reduce risk of surface water flooding that would have already been subject to a test of Likely Significant Effects. This measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0218806006	Develop operational procedures for the maintenance of drainage infrastructure in the borough	No Likely significant effect, already consented - this is an ongoing measure for Westminster will develop operational procedures for the maintenance of drainage infrastructure in the borough to build on the hydraulic modelling and studies completed in 2019 in the Greater London, Thames Flood Risk Area that would have already been subject to a test of Likely Significant Effects. This measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites
0210206008	Develop strategic documents to identify and progress flood risk management schemes in Hounslow	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0209906007	Empower volunteers to undertake Flood Warden duties in the London Borough of Havering	No Likely significant effect, already consented - this is an ongoing measure to empower volunteers. This measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites
0205806004	Encourage the implementation of green sustainable urban drainage systems infrastructure, reducing grey infrastructure and improving amenities in and across the borough	No Likely significant effect, already consented - this is an ongoing measure to encourage the implementation of green sustainable urban drainage systems infrastructure, reducing grey infrastructure and improving amenities in and across the borough to reduce discharge to existing watercourses, lower carbon outputs and improve ecological quality. This measure does not provide for any specific physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites
0209906005	Engage developers at pre-app stage in the London Borough of Havering	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0208706006	Engage with vulnerable communities in Enfield	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0217806006	Ensure all new developments adhere to the local plan and reduce the risk of flooding caused by surface water run-off in Tower Hamlets	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0214506003	Establish engagement processes for members of the public and local stakeholders in Redbridge	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0209406004	Explore innovative ways to engage with workers, residents, visitors and learners in the Borough of Hammersmith and Fulham	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Further this measure is ongoing so will have been subject to its own HRA scrutiny if required.
0210506004	Explore innovative ways to engage with workers, residents, visitors and learners in the Borough of Islington	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Further this measure is ongoing so will have been subject to its own HRA scrutiny if required.
0218806008	Explore innovative ways to engage with workers, residents, visitors and learners to communicate flood risk and resilience in the borough	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Further this measure is ongoing so will have been subject to its own HRA scrutiny if required.
0207006010	Have adopted new flood risk and urban greening policies in the City Plan 2036	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Further this measure is ongoing so will be subject to its own HRA as part of the Plan development and adoption.

Measure ID	Measure	Likely Significant Effects on European sites
0209406003	Have continued to monitor and liaise with key partners around development in the Counters Creek Catchment	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0209406002	Have developed a surface water flood risk action plan in the Borough of Hammersmith and Fulham	No Likely significant effect - this measure does not provide for any physical on the ground development. It will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Further this measure is ongoing so will be subject to its own HRA as part of its development and adoption.
0210506005	Have developed a surface water flood risk action plan in the Borough of Islington	No Likely significant effect - this measure does not provide for any physical on the ground development. It will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Further this measure is ongoing so will be subject to its own HRA as part of its development and adoption.
0218206006	Have worked with the 2021-27 Thames Regional Flood and Coastal Committee Programme in Waltham Forest	No Likely significant effect - this measure does not provide for any physical on the ground development. It will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Further this measure is ongoing so will already have been subject to HRA scrutiny if required.

Measure ID	Measure	Likely Significant Effects on European sites
0218206008	Have worked with the Whipps Cross Hospital redevelopment in Waltham Forest	No Likely significant effect, but down-the-line HRA may be required - this measure does not provide for any physical on the ground development, it provides for the Waltham Forest Lead Local Flood Authority to work with the redevelopment at Whipps Cross Hospital to better protect existing properties from flood risk. Whipps Hospital is located approximately 100m from Epping Forest SAC. Any outcome from this measure (such as the detailed schemes), should be subject to HRA to ensure they do not affect the Epping Forest European site.
0218306013	Hold 3 monthly meetings, inviting the members of the flood risk management (Flood Risk Management) team and other council services as appropriate in Wandsworth	No Likely significant effect - this measure does not provide for any physical on the ground development. It will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Further this measure is ongoing so will already have been subject to HRA scrutiny if required.
0210606003	Identify Sustainable urban Drainage System projects in in key locations in the Borough of Kensington and Chelsea	No Likely significant effect - this measure does not provide for any physical on the ground development. It will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Further this measure is ongoing so will already have been subject to HRA scrutiny if required.
0217206026	Identify and begin implementing a programme of flood alleviation schemes which mitigate local flood risks, utilising a catchment-based approach. The programme should quantify non-flood risk benefits to enable increased potential for partnership funding to be generated, and reviewed annually in London Borough of Sutton	No Likely significant effect - This measure is to identify and begin implementing a programmes of flood alleviation schemes within the London Borough of Sutton. Due to the relative remoteness of the London Borough of Sutton from European sites it is unlikely that the detailed scheme will result in a linking impact pathway to a European site.

Measure ID	Measure	Likely Significant Effects on European sites
0211206031	Identify areas most of risk of flooding from surface water in Lambeth Borough	No Likely significant effect - this measure does not provide for any physical on the ground development. It will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Further this measure is ongoing so will already have been subject to HRA scrutiny if required.
0217206028	Identify key 'at risk' communities, develop resources and work with the Borough's internal flood group to engage with targeted groups (for example businesses, schools, community groups etc.) and to develop methods of communication and community support in London Borough of Sutton	No Likely significant effect - this measure does not provide for any physical on the ground development. It will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0210206006	Identify key at-risk communities and develop resources within the Borough's Resilience Forums in Hounslow	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0208406004	Identify opportunities for joint working schemes to reduce flood risk in Ealing	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Further this measure is ongoing so will already have been subject to HRA scrutiny if required.
0212306005	Identify potential for further integrated capital and maintenance schemes considering the Environment Agency's six year programme and Thames Water's Drainage Wastewater Management Plan in Merton	No Likely significant effect - This measure is to identify potential for further integrated capital and maintenance schemes considering the Environment Agency's six year programme and Thames Water's Drainage Wastewater Management Plan in Merton. However, Merton is remote from sensitive European sites.



Measure ID	Measure	Likely Significant Effects on European sites
0210106012	Identify priorities for local flood risk management in the river catchments across Hillingdon	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Further this measure is ongoing so will already have been subject to HRA scrutiny if required.
0208406009	Identify smaller sustainable urban drainage schemes for flood mitigation and consider a natural flood management pilot scheme in Ealing	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Further this measure is ongoing so will already have been subject to HRA scrutiny if required.
0208406006	Identify sustainable urban drainage opportunities on council owned and maintained areas and retrofitting of property in Ealing	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Further this measure is ongoing so will already have been subject to HRA scrutiny if required.
0217206029	Identify those communities in the borough most at risk of flooding now and in the future and engage with them to identify potential appropriate flood risk mitigation options to improve their flood resistance and / or resilience in London Borough of Sutton	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0209206005	Implement a new flood reporting system in Hackney	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0216306043	Implement integrated water management strategy to limit surface water discharges to greenfield rates, including offset payments by developments in the Old Kent Road opportunity area.	No Likely significant effects, already consented – This is an ongoing measure to implement integrated water management strategy to limit surface water discharges to greenfield rates, including offset payments by developments in the Old Kent Road opportunity area. This ongoing scheme has already been consented and as such will already have been subject to HRA.
0217806002	Improve knowledge and understanding of flood risk within the borough in Tower Hamlets	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0209406007	Incorporate lessons learnt from surface water flooding, or exercises related to surface water flood risk response in the borough	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0209606027	Install rain gardens, gullies/sumps, permeable paving in key locations in Critical drainage area (CDA)_055, 057 & 073 - London Borough of Haringey	No Likely significant effect, already consented – The closest point of this measure to the Lee Valley SPA is Avenue Road (located c. 1km west). There could be potential for the scheme to hydrologically affect the SPA, however, the Walthamstow Wetlands is hydrologically disconnected from the surrounding ground and surface water networks as they are lined reservoirs that are fed by pumped water as they are operational Thames Water Reservoirs. Sufficient detail is not available within the FRMP to undertake HRA of this measure. Notwithstanding this, a scheme level HRA should be undertaken to assess any potential effects of the scheme upon Epping Forest SAC and confirm potential effects upon the Lee Valley SPA. This ongoing scheme has already been consented and as such will already have been subject to HRA.

Measure ID	Measure	Likely Significant Effects on European sites
0209706005	Invest in capital and external natural flood defence projects including; resilience and resistant measures to minimise the impacts of flooding in Harrow	No Likely significant effects, already consented – This is an ongoing measure to invest in capital and external natural flood defence projects including; resilience and resistant measures to minimise the impacts of flooding in Harrow to protect our community from the effects of flooding. This ongoing scheme has already been consented and as such will already have been subject to HRA.
0209906004	Invest in main rivers and watercourses by seeking biodiversity and natural flood management opportunities and employ a risk-based maintenance approach in the London Borough of Havering	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0214706011	Investigate increasing the surface water pipe diameter in St. Margaret's Road to reduce flooding in Richmond	No Likely significant effect - this measure does not provide for any physical on the ground development, merely investigations, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0209906006	Investigate opportunities for sustainable urban drainage systems retrofitting at council buildings and on highways in the London Borough of Havering	No Likely significant effect - this measure does not provide for any physical on the ground development, merely investigations, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0209706008	Investigate the north Brent and Harrow flood alleviation scheme to manage foul, surface water and fluvial flooding in the Wealdstone Brook catchment in Harrow	No Likely significant effect - this measure does not provide for any physical on the ground development, merely investigations, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0212706004	Join the London Lee Catchment Partnership in the Lee Valley	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0217806004	Maintain flood risk management and drainage assets in Tower Hamlets	No Likely significant effects, already consented – This is an ongoing measure to maintain flood risk management and drainage assets in Tower Hamlets to review and prioritise maintenance schemes. This ongoing scheme has already been consented and as such will already have been subject to HRA.
0209206010	Produce a practice guide on basement developments in Hackney	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0210606002	Progress an integrated Sustainable urban Drainage System project in Portobello Road	No Likely significant effects, already consented – This is an ongoing measure to progress an integrated Sustainable urban Drainage System project in Portobello Road to reduce surface water runoff. This ongoing scheme has already been consented and as such will already have been subject to HRA.
0208706004	Progress the Enfield Chase Restoration Project by delivering Natural Flood Management measures including wetland and woodland creation in Enfield	No Likely significant effects, already consented – This is an ongoing measure to progress the Enfield Chase Restoration Project by delivering Natural Flood Management measures including wetland and woodland creation in Enfield to reduce flood risk. This ongoing scheme has already been consented and as such will already have been subject to HRA.

Measure ID	Measure	Likely Significant Effects on European sites
0208406008	Promote flood risk awareness by engaging with at risk communities and prioritising at risk areas in Ealing	No Likely significant effect - this measure does not provide for any physical on the ground development, merely to promote flood risk awareness, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0210206003	Publish and begin implementing a programme of flood alleviation schemes in Hounslow	No Likely significant effect - this measure does not provide for any physical on the ground development, but the provision of a whole separate Plan. As such it will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Further any planning document produced will be subject to HRA prior to adoption.
0214706017	Publish and begin implementing a programme of flood alleviation schemes which mitigate local flood risks, utilising a catchment-based approach in Richmond	No Likely significant effect - this measure does not provide for any physical on the ground development, but the provision of a whole separate Plan. As such it will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Further any planning document produced will be subject to HRA prior to adoption.
0218306018	Publish and begin implementing a programme of flood alleviation schemes which mitigate local flood risks, utilising a catchment-based approach in Wandsworth	No Likely significant effect - this measure does not provide for any physical on the ground development, but the provision of a whole separate Plan. As such it will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Further any planning document produced will be subject to HRA prior to adoption.

Measure ID	Measure	Likely Significant Effects on European sites
0210506002	Reassess sustainable urban drainage system projects and surface water hotspots in the borough of Islington	No Likely significant effects, already consented – This is an ongoing measure to reassess sustainable urban drainage system projects and surface water hotspots in the borough to develop into potential surface water flood risk schemes. This ongoing scheme has already been consented and as such will already have been subject to HRA.
0218806003	Reassess sustainable urban drainage system projects and surface water hotspots in the borough of Westminster	No Likely significant effect - this measure does not provide for any physical on the ground development. It is to reassess sustainable urban drainage systems projects and surface water hotspots in the borough to develop into potential surface water flood risk schemes. As such it will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0212706006	Redesign the Lead Local Flood Authority website pages in Newham	No Likely significant effect - this measure does not provide for any physical on the ground development. As such it will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0212306004	Refresh and publish a revised Strategic Flood Risk Assessment in an online map format to engage more effectively with developers and the public in understanding existing and future flood risk. in Merton	No Likely significant effects, already consented – This is an ongoing measure to refresh and publish a revised Strategic Flood Risk Assessment in an online map format to engage more effectively with developers and the public in understanding existing and future flood risk. in Merton to reduce flood risk for new development, improve transparency of flood risk management policies and implement new flood risk policies. This ongoing scheme has already been consented.

Measure ID	Measure	Likely Significant Effects on European sites
0211706038	Review and identify opportunities to incorporate flood storage with wider capital works in Lewisham	No Likely significant effects, already consented – This is an ongoing measure to review and identify opportunities to incorporate flood storage with wider capital works in Lewisham to reduce the risk of surface and fluvial flooding. This measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. This ongoing scheme has already been consented.
0204606008	Review and improve the existing process of emergency preparedness, responding to flooding incidents and post-flood recovery in London Borough of Barnet	No Likely significant effect - this measure does not provide for any physical on the ground development. As such it will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0218806007	Review and refine the surface water modelling (as appropriate) incorporating models from partners in the borough	No Likely significant effect - this measure does not provide for any physical on the ground development. As such it will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0217206025	Review and update existing 'significant' definition for structures and features within London Borough of Sutton's flood risk asset register to ensure it reflects potential future risks. By 2027, assets with the greatest significance will have site-specific maintenance plans agreed with the landowner in London Borough of Sutton	No Likely significant effect - this measure does not provide for any physical on the ground development. As such it will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0210606006	Review and update the Flood Risk Management Strategy and action plan in the borough of Kensington and Chelsea	No Likely significant effects, already consented – This is an ongoing measure to review and update the Flood Risk Management Strategy and action plan in the borough to update and incorporate any new learning, flood risk and steer the councils climate action group. This measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. This ongoing measure has already been consented. Further any planning document will be subject to HRA prior to adoption.
0207506042	Review and update the Local Flood Risk Management Strategy/Action Plan so that our aims and objectives align with the objectives of the FCERM Strategy, and the strategic plans of RMAs to ensure we are working toward common goals in Croydon	No Likely significant effects – This measure is to review and update the Local Flood Risk Management Strategy/Action Plan so that our aims and objectives align with the objectives of the FCERM Strategy, and the strategic plans of RMAs to ensure we are working toward common goals in Croydon to manage flood risk. Moreover, Croydon is remote from hydrologically sensitive European sites.
0207506044	Review and update the existing Critical Drainage Areas within the borough, and use the data to develop maps and guidelines that will inform local planning policies to ensure that all new development in areas at risk will take into account the risk of flooding now and in the future in Croydon	No Likely significant effects – This measure is to review and update the existing Critical Drainage Areas within the borough and use the data to develop maps and guidelines that will inform local planning policies to ensure that all new development in areas at risk will take into account the risk of flooding now and in the future in Croydon to reduce flood risk and improve resilience. This measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Moreover, Croydon is remote from hydrologically sensitive European sites.



Measure ID	Measure	Likely Significant Effects on European sites
0210506006	Review and update the flood risk policy in Islington	No Likely significant effects, already consented – This is an ongoing measure to review and update the flood risk policy in Islington to ensure policies relating to flood risk and climate resilience are implemented, updated and monitored. This measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. This ongoing measure has already been consented. Further any planning document will be subject to HRA prior to adoption.
0210606005	Review and update the flood risk policy in Royal borough of Kensington and Chelsea's Local Plan	No Likely significant effects, already consented – This is an ongoing measure to review and update the flood risk policy in Royal borough of Kensington and Chelsea's Local Plan to ensure policies relating to flood risk and climate resilience are implemented, updated and monitored. This measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. This ongoing measure has already been consented. Further any planning document will be subject to HRA prior to adoption.
0209406006	Review planning policy to promote sustainable urban drainage systems in the Borough of Hammersmith and Fulham	No Likely significant effects – This measure is to review planning policy to promote sustainable urban drainage systems in the borough to revise in line with new legislation, guidance and learning. This measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Moreover, Hammersmith is remote from hydrologically sensitive European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0205006017	Review surface water flooding issues, due to the lack of permeable ground coverings, resulting in excessive demand on formal drainage systems in Bexley Village	No Likely significant effects, already consented – This is an ongoing measure to review surface water flooding issues, due to the lack of permeable ground coverings, resulting in excessive demand on formal drainage systems in Bexley Village to reduce flood risk and pressure on the formal drainage system. This measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0209906002	Review, refresh and refine the Surface Water Management Plan in the London Borough of Havering	No Likely significant effects, already consented – This is an ongoing measure to review, refresh and refine the Surface Water Management Plan in the London Borough of Havering to include natural flood management works in the Surface Water Management Plan. This measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Further any planning document produced will be subject to HRA prior to adoption.
0209706006	Seek to promote flood defence projects, which include protection for our environment, habitat, culture and heritage in Harrow	No Likely significant effects, already consented – This is an ongoing measure to review, refresh and refine the Surface Water Management Plan in the London Borough of Havering to include natural flood management works in the Surface Water Management Plan. This measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Further any planning document produced will be subject to HRA prior to adoption.

Measure ID	Measure	Likely Significant Effects on European sites
0208706005	Strengthen local planning policies to improve flood risk management through development in Enfield	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Further any planning document produced will be subject to HRA prior to adoption.
0217806007	Undertake a review of the boroughs sewer network capacity for both surface water and combined sewers in Tower Hamlets	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Further any planning document produced will be subject to HRA prior to adoption. This measure has been carried over from FRMP1.
0208406003	Undertake detailed modelling of prioritised flood risk areas and submit outline business case to progress to detailed design and construction in Ealing	No Likely significant effect, already consented - this ongoing measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Further any planning document produced will be subject to HRA prior to adoption. This measure has been carried over from FRMP1.
0208706002	Update the Local Flood Risk Management Strategy to include integrated flood mapping in Enfield	No Likely significant effect, already consented - this ongoing measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Further any planning document produced will be subject to HRA prior to adoption.

Measure ID	Measure	Likely Significant Effects on European sites
0209906003	Update the Strategic Flood Risk Assessment in the London Borough of Havering	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Further any planning document produced will be subject to HRA prior to adoption.
0212706002	Upgrade a register of assets with an enhanced scope and format in Newham	No Likely significant effect, already consented - this ongoing measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0214706019	Use a catchment-based approach to work closely with communities and landowners in Richmond	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0218306020	Use a catchment-based approach to work closely with communities and landowners in Wandsworth	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0210206004	Use a catchment-based approach working closely with communities and landowners to identify natural flood management schemes in Hounslow	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0211206028	Using a catchment based approach develop a programme of nature based solutions and sustainable urban drainage systems in Lambeth Borough	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0212306006	When delivering capital projects we will seek to incorporate nature based solutions and green blue infrastructure for flood risk reduction across the borough in Merton	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0214506002	Work alongside internal Council teams to encourage and introduce retrofitting drainage designs, like swales and leaky dams, in Redbridge	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0214506004	Work alongside key partners and stakeholders to commission, design and construct an Environment Improvement Scheme in the Seven Kings area	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0218206004	Work alongside the London Lea Catchment Partnership in Waltham Forest	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0204506007	Work alongside the council's planning strategy to investigate the possibility of de-canalising in Thames View Dyke	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0209906009	Work together to carry out flood modelling to scope options for flood alleviation projects and natural flood management options in the Rise Park Critical Drainage Area	No Likely significant effect, already consented - this ongoing measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0214706010	Work together with Thames Water to understand the interaction between the sewer system and fluvial/tidal flooding in Richmond	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0209906011	Work with Land of the Fanns to carry out flood modelling and scope potential natural flood management options in Bedfords Park local nature reserve	No Likely significant effect, already consented - this ongoing measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0209906010	Work with Land of the Fanns to carry out flood modelling and scope potential natural flood management options in Grenfell Park local reserve	No Likely significant effect, already consented - this ongoing measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0218206007	Work with Planning Policy department and developers to understand the combined surface water and fluvial risks to new developments in the Borough of Waltham Forest	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Further any planning document produced will be subject to HRA prior to adoption
0209706002	Work with communities to mitigate flood risk through community flood plans, property level resistance and resilience and emergency planning in Harrow	No Likely significant effect, already consented - this ongoing measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0207506046	Work with infrastructure owners, businesses and the community to identify priority infrastructure that needs to be made resilient to current and future risk of flooding, and work together to ensure measures that will increase resilience are put in place in Croydon	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0210506003	Work with internal departments around strategic areas in the Borough of Islington	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0218806004	Work with internal planning around strategic development areas in the borough	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0209706003	Work with other stakeholders to develop a long term strategic vision and delivery plan to manage flood risk from all sources in Harrow	No Likely significant effect, already consented - this ongoing measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Further any planning document produced will be subject to HRA prior to adoption.
0209706004	Work with our five borough risk management authorities to develop catchment based flood defence solutions in Harrow	No Likely significant effect, already consented - this ongoing measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0209906015	Work with the Infrastructure Delivery Group to improve processes for asset data collection and utilise asset condition data in the London Borough of Havering	No Likely significant effect, already consented - this ongoing measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0210206005	Work with the Local Planning Authority colleagues to implement strengthened policy and guidance in Hounslow	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. This measure is to implement policy that will have been subject to HRA prior to adoption.
0209206012	Work with the London Lea Catchment Partnership to create and deliver a programme of community engagement and education in London Lea Catchment	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0209206011	Work with the London Lea Catchment Partnership to develop a narrative on flood risk and sustainable drainage systems in London Lea Catchment	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.



**Table 21. Screening table showing the Test of Likely Significant Effects results for measures contained within the Thames Flood Risk Management Plan applicable across the Harlow, Thames (RoFSW) Flood Risk Area**

Measure ID	Measure	Likely Significant Effects on European sites
0208806057	Act on recommendations within the Green Infrastructure Strategy and Climate Action Commission in Essex	No likely significant effect, but down-the-line HRA may be required – This measure provides for Essex County Council to act on recommendations within the Green Infrastructure Strategy and Climate Action Commission in Essex to ensure cross-cutting multiple outcomes. This measure is in accordance with the already devised Green Infrastructure Strategy and Climate Action Commission in Essex which will in itself have been subject to HRA as required. This measure within the FRMP does not provide sufficient detail regarding the recommendations that will be acted upon Detailed HRA may be required of individual actions within the Strategy once sufficient detail is available. In line with the guidance quoted in paragraph 2.27, down-the-line assessment will be required as further details emerge regarding what will be done to deliver this measure.
0208806051	Attend quarterly catchment partnership meetings in Essex	No Likely significant effect, already consented - this ongoing measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0208806050	Carry out annual asset inspections on completed capital schemes to review maintenance needs in Essex	No Likely significant effect, already consented - this ongoing measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0208806048	Conduct a twice yearly review with local risk management authority partners in Essex	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0208806059	Continue delivery of educational communications and marketing campaigns of the council's 'Know Your Flood Risk' webpages in Essex	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0208806058	Continue marketing of the property flood resilience grant scheme in targeted areas known to be at highest risk in Essex	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0208806049	Continue to progress the floods capital programme, where funding allows in Essex	No Likely significant effect, already consented - this ongoing measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0208806047	Ensure information about risk management authority goals is accessible via Local Flood Risk Management Strategy to develop a joint strategic vision in Essex	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0208806056	Feed into the local plan development process in Essex	No Likely significant effect, already consented - this ongoing measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Further the ultimately deliverable (the Local Plan) will be subject to HRA as part of the development and adoption process.
0208806052	Identify any key infrastructure that the lead local flood authority deems to be at significant risk of surface water flooding in Harlow	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0208806061	Identify community groups at risk and promote the formation of a flood group in Harlow	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0208806060	Partner with Essex Flood Board members to actively promote awareness of flood risk, dangers of flood water, and various response and recovery roles in Essex	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0208806053	Provide guidance about resilience measures to owners of key infrastructure at significant flood risk in Harlow	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0208806054	Run a yearly sustainable drainage systems workshop to better understand challenges faced by developers when meeting local guidance requirements in Essex	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0208806055	Undertake a yearly review of the sustainable drainage systems guide and make changes where appropriate in Essex	No Likely significant effect, already consented - this ongoing measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

**Table 22. Screening table showing the Test of Likely Significant Effects results for measures contained within the Thames Flood Risk Management Plan applicable across the High Wycombe and the Wye Valley, Thames (RoFSW) Flood Risk Area**

Measure ID	Measure	Likely Significant Effects on European sites
0206206004	Complete a Surface Water Management Plan in the Wye Catchment	No Likely significant effect, already consented - this ongoing measure does not provide for any physical on the ground development, but the completion of a Plan level document. Any Plan document produced will be subject to HRA as part of its development and adoption.

Measure ID	Measure	Likely Significant Effects on European sites
0206206007	Complete an appraisal of upstream storage measures	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0206206006	Complete an appraisal of upstream storage measures	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

**Table 23. Screening table showing the Test of Likely Significant Effects results for measures contained within the Thames Flood Risk Management Plan applicable across the Lee Valley London, Thames (RoFRS) Flood Risk Area**

Measure ID	Measure	Likely Significant Effects on European sites
0201606009	Commission a feasibility study to understand the impact of de-culverting in and along the Salmons Brook, Pymmes Brook, Ching Brook, Stonebridge Brook, and other key River Lee tributaries	No Likely significant effect – There could be potential for the scheme to hydrologically affect the SPA as this measure relates to tributaries of the River Lee. However, the Walthamstow Wetlands (the Lee Valley SPA in this location) is hydrologically disconnected from the surrounding ground and surface water networks as they are lined reservoirs that are fed by pumped water as they are operational Thames Water Reservoirs.
0201606012	Commission a model in the upper Salmons Brook	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0201606010	Commission a model to evaluate the fluvial and surface water interactions in the Lower Lee Management Catchment	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0201606011	Complete a full analysis in the Lower Lee and Upper Lee Management Catchments in line with the integrated Lee 2100 Programme	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0201606008	Support local partners and risk management authorities on the design and installation of targeted natural flood management projects in and along the Salmons Brook and Pymmes Brook	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

**Table 24. Screening table showing the Test of Likely Significant Effects results for measures contained within the Thames Flood Risk Management Plan applicable across the London and Thames Estuary, Thames (RoFRS) Flood Risk Area**

Measure ID	Measure	Likely Significant Effects on European sites
0202006032	Carry out a review of legacy assets in London and Thames Estuary	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0201606005	Carry out a strategic assessment to better understand and communicate the impact of the tidal River Thames in and along the River Colne, River Brent, and River Crane and on the non-tidal section of the River Thames in west London	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0201606006	Carry out an assessment to identify and understand the most vulnerable communities in the London and Thames Estuary Flood Risk Area	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0201806010	Carry out the flood action campaign in London and Thames Estuary	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0201606004	Complete a modelling study of fluvial and tidal interactions in the Mayes Brook catchment on sluice gates, such as Kingsbridge Sluice Gate and Ripple Road Sluice,	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0201806002	Conduct a project to gather third party data of photographs and videos at specific locations in the Thames Tidal foreshore in London	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0200706100	Continue to investigate flood risk in Bulphan	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0212706005	Create a Royal Docks riverside strategy to improve flood risk management through development in Newham	No Likely significant effect - this measure does not provide for any physical on the ground development, but the creation of a strategy. As such it will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Further any planning document produced will be subject to HRA prior to adoption.
0201806007	Create an Asset Management Plan for the Thames Estuary policy units in the Thames Estuary	No Likely significant effect - this measure does not provide for any physical on the ground development, but the creation of a management plan. As such it will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Further any planning document produced will be subject to HRA prior to adoption.

Measure ID	Measure	Likely Significant Effects on European sites
0201806009	Create and implement the Thames Estuary 2100 Flood Defence Principles for developments in the vicinity of the Thames tidal defences	No Likely significant effect, but down-the-line HRA may be required – This measure is to create and implement the Thames Estuary 2100 Flood Defence Principles for developments in the vicinity of the Thames tidal defences to ensure a consistent approach to manage impacts on development from tidal flood risk and climate change. The area that this strategic document will incorporate includes locations in proximity to the Thames Estuary and Marshes SPA and Ramsar site, Medway Estuary and Marshes SPA and Ramsar site, Benfleet and Southend Marshes SPA and Ramsar site, Foulness (Mid-Essex Coast Phase 5) SPA and Ramsar site, Essex Estuaries SAC. Whilst this measure in itself does not provide for any potential links to European sites since it is a commitment to create the Thames Estuary 2100 strategy, the deliverable of this measure may do. Any resulting Principles and subsequent schemes may require HRA to ensure no likely significant effects affect the above mentioned European sites.
0217806005	Deliver the Thames Estuary 2100 Plan in Tower Hamlets	No Likely significant effect, TE2100 Plan already consented – delivery of the Thames Estuary 2100 Plan in the Tower Hamlets will not adversely affect European sites. The Thames Estuary 2100 Plan (TE2100), will have been subject to its own specific HRA.
0202006033	Follow national planning policy framework and planning practice guidance on flood risk and coastal change in London and Thames Estuary	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0207006003	Have adopted a Riverside Strategy which will drive forward the requirements in the Thames Estuary 2100 Plan	No Likely significant effect – the adoption of the Riverside Strategy will not provide for any physical on the ground development. It is the individual policies within the Strategy could have the potential to link to European sites. However, as part of the Riverside Strategies adoption and the delivery of individual schemes within the strategy, it will be subject to HRA as required.
0201806005	Have assessed an appropriate management plan for the operation and maintenance of Vitbe Sluice gates in the river Cray	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0201806008	Have completed the modelling phase to deliver updated flood zones and inundation mapping in the Thames Estuary	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0201806003	Have produced and published an updated, integrated and evidence based Thames Estuary 2100 plan in the Thames Estuary	No Likely significant effect, but down-the-line HRA may be required – this measure does not provide for any physical on the ground development, but for the production and publication of the Thames Estuary 2100 plan. As such this measure will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. It is the detail within the TE2100 that may provide for potential linking impact pathways, and it is this document that will require HRA assessment. Any planning document produced will be subject to HRA prior to adoption.



Measure ID	Measure	Likely Significant Effects on European sites
0201806004	In conjunction with our partners, establish a strategic catchment approach in the Marsh Dykes	No Likely significant effect, but down-the-line HRA may be required – This measure is to establish a strategic catchment approach in the Marsh Dykes to address the condition and operating regime of the existing assets such as pumping stations, channels and culverts and their contribution to the management of flood risk. The area that this strategic document will incorporate includes locations in proximity to the Thames Estuary and Marshes SPA and Ramsar site, Medway Estuary and Marshes SPA and Ramsar site, Benfleet and Southend Marshes SPA and Ramsar site, Foulness (Mid-Essex Coast Phase 5) SPA and Ramsar site, Essex Estuaries SAC. Whilst this measure in itself does not provide for any potentially links to European sites, the deliverable of this measure may do. Any resulting strategic approach and subsequent schemes may require HRA to ensure no likely significant effects affect the above mentioned European sites. In line with the guidance quoted in paragraph 2.27, down-the-line assessment will be required as further details emerge regarding what will be done to deliver this measure.
0201606003	Pilot use of the Stakeholder Relationship Manager tool in London tidal boroughs	No Likely significant effect, already consented - this ongoing measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0209906014	Produce a holistic Thames Estuary 2100 Riverside Strategy in the London Borough of Havering	No Likely significant effect – the production of the Riverside Strategy will not provide for any physical on the ground development. It is the individual policies within the Strategy could have the potential to link to European sites. Moreover, Havering is remote from hydrologically sensitive European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0201606032	Seek to create a Brent 2100 Strategy for long-term adaptation and resilience of the urban environment in the Brent Operational Catchment	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Any resulting Strategy and subsequent schemes may require HRA to ensure no likely significant effects affect European sites.
0217606014	Seek to implement telemetry monitoring and warning in Bulphan	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0201606002	Support the London boroughs in their creation of pilot Thames Estuary 2100 Riverside Strategies in the London Boroughs of Newham and the City of London Corporation	No Likely significant effect, already consented - this ongoing measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Any resulting Strategy and subsequent schemes may require HRA to ensure no likely significant effects affect European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0200706063	Work with developers in the Thames Estuary	<p>No Likely significant effect, but down-the-line HRA may be required – This ongoing measure is for the Environment Agency to work with developers in the Thames Estuary to (1) ensure that the cumulative impact of National Significant Infrastructure Projects on flood risk is considered and adequately mitigated and (2) identify opportunities to achieve flood risk and biodiversity net gain through development, as well as seeking developer contributions towards the maintenance of flood defence infrastructure. The area that this measure will incorporate includes locations in proximity to the Thames Estuary and Marshes SPA and Ramsar site, Medway Estuary and Marshes SPA and Ramsar site, Benfleet and Southend Marshes SPA and Ramsar site, Foulness (Mid-Essex Coast Phase 5) SPA and Ramsar site, Essex Estuaries SAC. Whilst this measure in itself does not provide for any potentially links to European sites, the deliverable of this measure may do. Any resulting schemes may require HRA to ensure no likely significant effects affect the above mentioned European sites. In line with the guidance quoted in paragraph 2.27, down-the-line assessment will be required as further details emerge regarding what will be done to deliver this measure.</p>

Measure ID	Measure	Likely Significant Effects on European sites
0201806006	Work with developers through the planning and permitting process to construct and contribute to new flood defence improvements and raisings in the Thames Estuary	No Likely significant effect, but down-the-line HRA may be required – This measure is to work with developers through the planning and permitting process to construct and contribute to new flood defence improvements and raisings in the Thames Estuary to deliver the Thames Estuary 2100 requirements. The area that this measure will incorporate includes locations in proximity to the Thames Estuary and Marshes SPA and Ramsar site, Medway Estuary and Marshes SPA and Ramsar site, Benfleet and Southend Marshes SPA and Ramsar site, Foulness (Mid-Essex Coast Phase 5) SPA and Ramsar site, Essex Estuaries SAC. Whilst this measure in itself does not provide for any potentially links to European sites, the deliverable of this measure may do. Any resulting schemes may require HRA to ensure no likely significant effects affect the above mentioned European sites. In line with the guidance quoted in paragraph 2.27, down-the-line assessment will be required as further details emerge regarding what will be done to deliver this measure.
0201906002	carry out a strategic assessment to better understand and communicate the impact of the tidal River Thames on its tributaries (Wandle and Beverley Brook) and on the non-tidal section of the River Thames including its tributaries (Hogsmill, Rythe and Mole) in West London	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0202006034	replace the Wick outfall tidal flap, repair the floodwall at Lower Stoke, and complete asset management plans for the defences in Thames Estuary	No Likely significant effect, but down-the-line HRA may be required – This measure is to replace the Wick outfall tidal flap, repair the floodwall at Lower Stoke, and complete asset management plans for the defences in Thames Estuary to maintain flood risk protection and ensure a plan into the future. The area that this measure will incorporate includes locations in proximity to the Thames Estuary and Marshes SPA and Ramsar site, Medway Estuary and Marshes SPA and Ramsar site, Benfleet and Southend Marshes SPA and Ramsar site, Foulness (Mid-Essex Coast Phase 5) SPA and Ramsar site, Essex Estuaries SAC. This measure within the FRMP does not provide sufficient detail regarding the scheme to undertake a detailed HRA. Any resulting detailed schemes are likely to require HRA to ensure no likely significant effects affect the above mentioned European sites. In line with the guidance quoted in paragraph 2.27, down-the-line assessment will be required as further details emerge regarding what will be done to deliver this measure.

**Table 25. Screening table showing the Test of Likely Significant Effects results for measures contained within the Thames Flood Risk Management Plan applicable across the Luton and Dunstable, Thames (RoFSW) Flood Risk Area**

Measure ID	Measure	Likely Significant Effects on European sites
0212006014	Develop a programme of flood risk management capital schemes in Luton	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0212006013	Develop adaptive approaches in Chapel Street, Stuart Street Critical Drainage Area	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0212006016	Have continued its role as a statutory consultee to the local planning authority in Luton	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0206706002	Have developed an evidence database to inform the long term strategic vision and adaptive delivery plan in Dunstable	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0206706003	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0212006017	Have organised community presentations, litter picks and questionnaires in Luton	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0212006015	Have worked internally with the Ecology and Parks department in Luton	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0206706004	Have worked with its partners and the community to identify the potential for nature-based and sustainable drainage solutions in Dunstable	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0206706006	Have worked with its partners and the community to improve the awareness of current and future flood risk in Dunstable	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0212006018	Work together to develop a pilot in and around the area	No Likely significant effect, already consented - this ongoing measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0206706005	Work with its partners, in line with national planning policy in Dunstable	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

**Table 26. Screening table showing the Test of Likely Significant Effects results for measures contained within the Thames Flood Risk Management Plan applicable across the Maidenhead, Thames (RoFRS) Flood Risk Area**

Measure ID	Measure	Likely Significant Effects on European sites
0203006044	Maintain designated flood assets in Maidenhead, Windsor and Eton Flood Alleviation Scheme area	No Likely significant effect, already consented - this ongoing measure has already been consented. At its closest this measure is located approximately 3km from Windsor Forest and Great Park SAC. This site is not noted to be sensitive to hydrological changes and as such it is unlikely that this measure would have a linking impact pathway to the European site.

Measure ID	Measure	Likely Significant Effects on European sites
0203006045	Use the newly developed "opportunities mapper" (online mapping system) in Maidenhead	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

**Table 27. Screening table showing the Test of Likely Significant Effects results for measures contained within the Thames Flood Risk Management Plan applicable across the Maidenhead, Thames (RoFSW) Flood Risk Area**

Measure ID	Measure	Likely Significant Effects on European sites
0219106007	Develop and maintain a live database (including GIS mapping) of flood incidents	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0219106003	Investigate options to design and construct a detention basin	No Likely significant effect, already consented - this ongoing measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0219106004	Investigate options to design and construct a swale/detention basin	No Likely significant effect, already consented - this ongoing measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0219106005	Prepare and publish Sustainable Drainage System Guidance establishing local standards	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.



**Table 28. Screening table showing the Test of Likely Significant Effects results for measures contained within the Thames Flood Risk Management Plan applicable across the Marlow, Thames (RoFRS) Flood Risk Area**

Measure ID	Measure	Likely Significant Effects on European sites
0203006041	Continue maintenance of designated flood assets	No Likely significant effect, already consented - this ongoing measure is located approximately 1.5km from the Chiltern Beechwoods SAC. The SAC is not noted as being sensitive to hydrological changes. Notwithstanding this, a scheme level HRA should have been undertaken to confirm potential effects upon the SAC.
0206206003	Progress design and construction of the most appropriate flood alleviation options from the Marlow Newt Ditch Flood Alleviation Scheme in Marlow	No Likely significant effect – This measure is located within less than 0.1km from the Chiltern Beechwoods SAC. The SAC is not noted as being sensitive to hydrological changes.
0203006039	Use the newly developed "opportunities mapper" (online mapping system)	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0206206009	Work in partnership to investigate the feasibility of flood alleviation options	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0203006040	Work in partnership with organisations and across sectors, sharing skills, knowledge and resources	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

**Table 29. Screening table showing the Test of Likely Significant Effects results for measures contained within the Thames Flood Risk Management Plan applicable across the Newbury, Thames (RoFSW) Flood Risk Area**

Measure ID	Measure	Likely Significant Effects on European sites
0218606014	Administer government recovery/repair grants in Newbury and Thatcham	No Likely significant effect, already consented - this ongoing measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0218606008	Apply for further grants and work with partners to implement the recommendations of the Surface Water Management Plan in Thatcham	No Likely significant effect, already consented - this ongoing measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0218606007	Carry out a programme of small remediation works in West Berkshire	No likely significant effect, but down-the-line HRA may be required – This measure provides for West Berkshire Council to carry out a programme of small remediation works in West Berkshire to improve land drainage and highways infrastructure capacity, and where possible deliver multiple benefits. This measure within the FRMP does not provide sufficient detail regarding the works mentioned within this measure to enable a detailed HRA to be undertaken. The area identified within the measure includes areas of the Kennet & Lambourn Floodplain SAC. The SAC is designated for Desmoulin`s whorl snail <i>Vertigo moulinsiana</i> . This snail is noted to be sensitive to: water pollution, hydrological changes, changes in land management, inappropriate water levels, and climate change. However it is recommended that a detailed scheme HRA is undertaken to confirm this. In line with the guidance quoted in paragraph 2.27, down-the-line assessment will be required as further details emerge regarding what will be done to deliver this measure.

Measure ID	Measure	Likely Significant Effects on European sites
0218606009	Carry out the Lower Way and West Thatcham flood alleviation schemes	<p>No likely significant effect, but down-the-line HRA may be required – This measure provides for West Berkshire Council to carry out a programme of small remediation works in West Berkshire to improve land drainage and highways infrastructure capacity, and where possible deliver multiple benefits.</p> <p>This measure within the FRMP does not provide sufficient detail regarding the works mentioned within this measure to enable a detailed HRA to be undertaken. The area identified within the measure includes areas of the Kennet &amp; Lambourn Floodplain SAC. The SAC is designated for Desmoulin`s whorl snail <i>Vertigo moulinsiana</i>. This snail is noted to be sensitive to: water pollution, hydrological changes, changes in land management, inappropriate water levels, and climate change. However it is recommended that a detailed scheme HRA is undertaken to confirm this. In line with the guidance quoted in paragraph 2.27, down-the-line assessment will be required as further details emerge regarding what will be done to deliver this measure.</p>
0218606002	Develop an integrated Flood Management and Development Site Plan in West Berkshire	<p>No Likely significant effect, but down-the-line HRA may be required - this measure does not provide for any physical on the ground development (merely the development of a plan), and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. However, the area included within this measure includes the Kennet &amp; Lambourn Floodplain SAC. The SAC is designated for Desmoulin`s whorl snail <i>Vertigo moulinsiana</i>. Any plan developed will need to be subject to HRA prior to consent or adoption. In line with the guidance quoted in paragraph 2.27, down-the-line assessment will be required as further details emerge regarding what will be done to deliver this measure.</p>

Measure ID	Measure	Likely Significant Effects on European sites
0218606006	Ensure major developers deliver flood risk betterment to existing properties where it is reasonable or necessary to do so	No Likely significant effect, already consented - this ongoing measure does not in itself provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0218606013	Maintain and assist Parish Flood Wardens to prepare for and communicate groundwater flood risk, including citizen monitoring of groundwater levels in Newbury and Thatcham	No Likely significant effect, already consented - this ongoing measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0218606015	Maintain the resources to carry out emergency flood alleviation works and deployment of mobile pumping equipment in Newbury and Thatcham	No Likely significant effect, already consented - this ongoing measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0218606010	Promote retrofit sustainable drainage interventions through involvement with Newbury Town Centre Project	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0218606003	Pursue grant applications for a Property Flood Resilience scheme for Tull Way, Cold Ash and Dunstan Park in Thatcham	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0218606011	Support Thames Water in progressing with sewer flood alleviation at Newbury Railway Station in Newbury	No Likely significant effect - this measure does not provide for any physical on the ground development, merely support for a scheme, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0218606012	Work in close partnership with Thatcham Flood Forum to disseminate data and information on flood risk to communities in Newbury and Thatcham	No Likely significant effect, already consented - this ongoing measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0218606004	Work with LANDWISE research project at Reading University to further explore Natural Flood Management opportunities in West Berkshire	No Likely significant effect, already consented - this ongoing measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0218606005	Work with Thames Water Utilities Limited to develop the Drainage and Wastewater Management Plan	No Likely significant effect, already consented - this ongoing measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Further any planning document produced will be subject to HRA prior to adoption.

**Table 30. Screening table showing the Test of Likely Significant Effects results for measures contained within the Thames Flood Risk Management Plan applicable across the Oxford, Thames (RoFRS) Flood Risk Area**

Measure ID	Measure	Likely Significant Effects on European sites
0203106078	Seek and support early engagement with local planning authorities in Oxford	No Likely significant effect, already consented - this ongoing measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0203106064	Support deployment of temporary flood barriers in Oxford	No Likely significant effect, already consented - this ongoing measure does not provide for any physical on the ground development, merely supports it, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Any deployment of temporary flood barriers would need to be subject to HRA consideration prior to implementation due to its close proximity to Oxford Meadows SAC.

Measure ID	Measure	Likely Significant Effects on European sites
0203106062	Work in partnership to finalise the approvals needed and begin construction on a flood alleviation scheme in Oxford	No Likely significant effect, already consented - this ongoing measure does not provide for any physical on the ground development, merely to work in partnership to deliver a flood alleviation scheme, and as such the measure will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Any flood alleviation scheme would need to be subject to HRA consideration prior to implementation due to its close proximity (c. 1km) to Oxford Meadows SAC.
0203106061	Work with the Earth Trust to plan future land management practices in Oxford Flood Alleviation Scheme area	No Likely significant effect, already consented - this ongoing measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

**Table 31. Screening table showing the Test of Likely Significant Effects results for measures contained within the Thames Flood Risk Management Plan applicable across the Rainham, Thames (RoFSW) Flood Risk Area**

Measure ID	Measure	Likely Significant Effects on European sites
No Measures	No Measures	

**Table 32. Screening table showing the Test of Likely Significant Effects results for measures contained within the Thames Flood Risk Management Plan applicable across the Reading, Thames (RoFRS) Flood Risk Area**

Measure ID	Measure	Likely Significant Effects on European sites
0203006051	Continue to maintain Caversham weir in Caversham lock	No Likely significant effect, already consented - this ongoing measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0203006050	Investigate opportunities in Scours Lane	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0203006077	Progress Lower Loddon Catchment Flood modelling in Arborfield Drain	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0203006049	Progress appraisal of options of Reading and Caversham flood alleviation scheme in North Reading and Lower Caversham	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0203006053	Work in partnership to investigate opportunities along the River Loddon including in Lower Earley	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

**Table 33. Screening table showing the Test of Likely Significant Effects results for measures contained within the Thames Flood Risk Management Plan applicable across the Reading, Thames (RoFSW) Flood Risk Area**

Measure ID	Measure	Likely Significant Effects on European sites
0214406006	Carry out a flood investigation	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0214406007	Carry out a strategic flood study	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0214406009	Consider production of a Supplementary Planning Document on the use of Sustainable Drainage Systems (Sustainable Drainage Systems) within new developments in Reading	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. None the less, and SPD will be subject to HRA as part of the development and adoption process.
0214406008	Consider retrofitting Sustainable Drainage Systems in any highway scheme	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0214406003	Investigate a Flood Alleviation Scheme in Byworth Close	No Likely significant effect - this measure does not provide for any physical on the ground development, merely to investigate a scheme, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0214406004	Investigate a Flood Alleviation Scheme in North Street	No Likely significant effect - this measure does not provide for any physical on the ground development, merely to investigate a scheme, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0214406005	Investigate a Flood Alleviation Scheme in Princes Street	No Likely significant effect - this measure does not provide for any physical on the ground development, merely to investigate a scheme, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0214406012	Promote understanding of critical flood risk assets through engagement with local communities	No Likely significant effect - this measure does not provide for any physical on the ground development, merely to promote community engagement, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.



Measure ID	Measure	Likely Significant Effects on European sites
0214406010	Raise awareness of flood risk by engaging with the community	No Likely significant effect - this measure does not provide for any physical on the ground development, merely to raise community awareness of flood risk, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0214406011	Undertake a holistic annual review of progress of flood alleviation schemes, strategies and measures	No Likely significant effect - this measure does not provide for any physical on the ground development, merely to review the progress of flood alleviation schemes, strategies and measures. As such it will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0214406002	Work in partnership with Thames Water Utilities Limited and the Environment Agency to progress a Flood Alleviation Scheme	No Likely significant effect - this measure does not provide for any physical on the ground development, merely to work in partnership with Thames Water to progress the Stone Street flood alleviation scheme. As such it will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

**Table 34. Screening table showing the Test of Likely Significant Effects results for measures contained within the Thames Flood Risk Management Plan applicable across the Reigate, Thames (RoFSW) Flood Risk Area**

Measure ID	Measure	Likely Significant Effects on European sites
0217106002	Have worked with Local Planning Authorities and other partners to identify opportunities for design in Reigate town	No Likely significant effect, already consented – this ongoing measure does not provide for any physical on the ground development, merely to work in partnership with the LPAs and other partners to identify opportunities. As such it will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0217106003	Work in partnership with Surrey County Council to review the Flood Alleviation Scheme options and appraisal report (2019) in Redhill	No Likely significant effect, already consented - this ongoing measure does not provide for any physical on the ground development, merely to work in partnership with Surrey County Council to review the Flood Alleviation Scheme options and appraisal report. As such it will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

**Table 35. Screening table showing the Test of Likely Significant Effects results for measures contained within the Thames Flood Risk Management Plan applicable across the Rochester, Thames (RoFRS) Flood Risk Area**

Measure ID	Measure	Likely Significant Effects on European sites
0202006026	Carry out a review of legacy assets in Rochester	No Likely significant effect - this measure does not provide for any physical on the ground development, merely to review legacy assets. As such it will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0202006029	Carry out the flood action campaign in Rochester	No Likely significant effect - this measure does not provide for any physical on the ground development, merely to carry out a flood action campaign. As such it will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0202006030	Develop a Strood Strategy to deliver Shoreline Management Plan policies and provide evidence base for projects in Chatham	No Likely significant effect, but down-the-line HRA may be required - this measure does not provide for any physical on the ground development, but the intention to deliver a Strood Strategy and SMP policies and provide an evidence base. As such this measure will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. However, the measure area is located on the River Medway c. 4km upstream of the Medway Estuary and Marshes Ramsar and SPA. Any planning documents / policies produced as a result of this measure will be subject to HRA prior to adoption. Appropriate level of detail to undertake HRA is not available at the FRMP level. In line with the guidance quoted in paragraph 2.27, down-the-line assessment will be required as further details emerge regarding what will be done to deliver this measure.
0202006027	Follow national planning policy framework and planning practice guidance on flood risk and coastal change in Rochester	No Likely significant effect - this measure does not provide for any physical on the ground development, merely to follow existing frameworks and guidance. As such it will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0202006028	Monitor areas of saltmarsh and mudflat in Rochester	No Likely significant effect, but down-the-line HRA may be required - this measure does not provide for any physical on the ground development, but the intention to deliver a Strood Strategy and SMP policies and provide an evidence base. As such this measure will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. However, the measure area is located on the River Medway c. 4km upstream of the Medway Estuary and Marshes Ramsar and SPA within habitat that could act as functionally linked land for SPA and Ramsar species. Any resulting scheme should be subject to HRA prior to consent/ adoption. In line with the guidance quoted in paragraph 2.27, down-the-line assessment will be required as further details emerge regarding what will be done to deliver this measure.

**Table 36. Screening table showing the Test of Likely Significant Effects results for measures contained within the Thames Flood Risk Management Plan applicable across the Slough, Thames (RoFRS) Flood Risk Area**

Measure ID	Measure	Likely Significant Effects on European sites
0203006088	Identify opportunities to restore river corridors, de-culvert and assess removal of structures where appropriate in Slough	No Likely significant effect, already consented – this ongoing measure does not provide for any physical on the ground development, merely to develop opportunities. As such it will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0203006087	Support Slough Borough Council to progress appraisal of options for Salt Hill Stream flood alleviation scheme in Slough	No Likely significant effect, already consented – this ongoing measure does not provide for any physical on the ground development, merely to support the Council to progress option appraisal. As such it will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

**Table 37. Screening table showing the Test of Likely Significant Effects results for measures contained within the Thames Flood Risk Management Plan applicable across the Slough, Thames (RoFSW) Flood Risk Area**

Measure ID	Measure	Likely Significant Effects on European sites
0215606004	Develop a council flood plan to set out the specific response procedures in the event of a flood incident in Slough Borough Council	No Likely significant effect - this measure does not in itself provide for any physical on the ground development, merely the development of a flood plan. As such the measure will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Further any planning document produced will be subject to HRA prior to adoption.
0215606003	Develop a strategic understanding of potential to retrofit Sustainable Drainage Systems in Slough	No Likely significant effect - this measure does not provide for any physical on the ground development, merely to develop a strategic understanding to retrofit Sustainable Drainage Systems in Slough. As such it will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0215606005	Update the Surface Water Management Plan (SWMP) in Slough	No Likely significant effect - this measure does not in itself provide for any physical on the ground development, merely the update the SWMP. As such the measure will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Further any planning document produced will be subject to HRA prior to adoption.
0215606002	Work in partnership with the Environment Agency to progress appraisal of options for Salt Hill Stream Flood Alleviation Scheme in Slough	No Likely significant effect – this measure does not provide for any physical on the ground development, merely to support the Council to progress appraisal options. As such it will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0215606006	Work in partnership with the Environment Agency to restore river corridors, de-culvert and assess removal of structures where appropriate in Slough	No Likely significant effect – this measure does not provide for any physical on the ground development, but to work in partnership with the EA to undertake schemes. Moreover, Slough is remote from hydrologically sensitive European sites.

**Table 38. Screening table showing the Test of Likely Significant Effects results for measures contained within the Thames Flood Risk Management Plan applicable across the Smallfield, Thames (RoFRS) Flood Risk Area**

Measure ID	Measure	Likely Significant Effects on European sites
0201906047	Carry out survey work and develop a new hydraulic model for the Burstow Stream and tributaries in Burstow catchment	No Likely significant effect, already consented – this ongoing measure does not provide for any physical on the ground development, merely to conduct survey work to enable the development of a new hydraulic model. As such it will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0201906049	Carry out the flood action campaign in Smallfield	No Likely significant effect - this measure does not provide for any physical on the ground development, merely to conduct a flood action campaign. As such the measure will not provide for any activities that could provide any potential linking impact pathways to European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0201906050	Support and advise Surrey County Council in their ongoing development for a surface water capital project in Smallfield	No Likely significant effect - this measure does not provide for any physical on the ground development, merely to support and advice SCC. As such the measure will not provide for any activities that could provide any potential linking impact pathways to European sites.
0201906051	facilitate engagement workshops with Thames Water and Surrey County Council to appraise options for surface water network capacity improvement and resilience in Smallfield	No Likely significant effect - this measure does not provide for any physical on the ground development, merely to facilitate engagement workshops. As such the measure will not provide for any activities that could provide any potential linking impact pathways to European sites.

**Table 39. Screening table showing the Test of Likely Significant Effects results for measures contained within the Thames Flood Risk Management Plan applicable across the Staines, Thames (RoFRS) Flood Risk Area**

Measure ID	Measure	Likely Significant Effects on European sites
0203206011	Have improved existing assets by replacing overfall weir with 3-6 large new gates as part of the River Thames Scheme in Teddington, Molesey and Sunbury weir	No Likely significant effects, already consented – This is an ongoing measure to improve existing assets by replacing overfall weir with 3-6 large new gates as part of the River Thames Scheme in Teddington, Molesey and Sunbury weir to increase flood flow capacities. This ongoing scheme has already been consented and as such will already have been subject to HRA.
0203206009	Have worked with local planning authorities and other partners to continue to identify opportunities for design in the River Thames Scheme area	No Likely significant effect - this measures does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0203206008	Work with Partners to install property resilience measures in the River Thames Scheme area	No Likely significant effect, already consented - this measures does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0203206007	Work with Partners to start building a 8 km flood relief channel alongside the River Thames	No Likely significant effect, already consented - this measures does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Since the flood relief channels traverse close to South West London Waterbodies SPA/Ramsar site, there is potential for effects from the scheme, but this is an ongoing measure that has already been consented and as such will already have been subject to HRA. The measure is simply a commitment to continue with it.
0203206010	Work with Partners to support deployment of temporary flood barriers in the River Thames Scheme area	No Likely significant effect, already consented - this measures does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

**Table 40. Screening table showing the Test of Likely Significant Effects results for measures contained within the Thames Flood Risk Management Plan applicable across the Thurrock, Thames (RoFSW) Flood Risk Area**

Measure ID	Measure	Likely Significant Effects on European sites
0217606010	Identify potential preferential flow paths in Thurrock	No Likely significant effect - this measures does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0217606008	Identify rural roads with No highways drainage and investigate opportunities to install drainage ditches in Thurrock	No Likely significant effect - this measures does not provide for any physical on the ground development, merely to identify and investigate opportunities. As such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0217606013	Implement area specific rainwater harvesting and monitoring in Quebec Road and Christchurch Road	No Likely significant effect – the area specific rainwater harvesting and monitoring in Quebec Road and Christchurch Road does not have the potential to impact upon a European site. The measure is located c. 1 km from the Thames Estuary and Marshes SPA and Ramsar site. However the SPA and Ramsar are heavily influenced by tidal inputs with high levels of water mixing due to the local tidal processes.
0217606007	Investigate opportunities to introduce green roofs or areas as and when sites become available for development in Thurrock	No Likely significant effect - this measures does not provide for any physical on the ground development, merely to investigate opportunities. As such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0217606016	Prioritise and promote mycelium induced greenroofs in new development through policy and practice in Thurrock	No Likely significant effect - this measures does not provide for any physical on the ground development, merely to prioritise and promote mycelium induced greenroofs. As such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0217606009	Produce planning policy advice for paving of driveways, use of residential soakaways and waterbutts in Thurrock	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Further any planning document produced will be subject to HRA prior to adoption.
0217606012	Review Surface Water Management Plans for critical infrastructure in Thurrock	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Further any planning document produced will be subject to HRA prior to adoption.
0217606017	Revise the existing Surface Water Management Plan to identify new measures and projects to minimise flood risk in Thurrock	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Further any planning document produced will be subject to HRA prior to adoption.



Measure ID	Measure	Likely Significant Effects on European sites
0217606011	Share Surface Water Management Plans with critical service providers in Thurrock	No Likely significant effect - this measure does not provide for any physical on the ground development, merely to share Surface Water Management Plans. As such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Further any planning document produced will be subject to HRA prior to adoption
0217606006	Update its website to highlight the impact of fly tipping on flood risk in Thurrock	No Likely significant effect - this measure does not provide for any physical on the ground development, merely to update the Borough Council's website to highlight the impact of fly tipping on flood risk. As such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0217606015	Work in partnership with Anglian Water in Thurrock	No Likely significant effect - this measure does not provide for any physical on the ground development, merely to work in partnership with Anglian Water in Thurrock to promote retrofitting of Sustainable Drainage Schemes in existing development and ensure implementation in new builds. As such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

**Table 41. Screening table showing the Test of Likely Significant Effects results for measures contained within the Thames Flood Risk Management Plan applicable across the Tonbridge, Thames (RoFRS) Flood Risk Area**

Measure ID	Measure	Likely Significant Effects on European sites
0202006017	Carry out a review of legacy assets in Tonbridge	No Likely significant effect - this measure does not provide for any physical on the ground development, merely to carry out a review of legacy assets in Tonbridge to improve water quality and ensure fish passage. As such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0202006019	Carry out specific flood awareness activities through the medway flood partnership and the flood action campaign in Tonbridge	No Likely significant effect - this measure does not provide for any physical on the ground development, merely to carry out specific flood awareness activities. As such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0202006021	Engage with Southern Water to discuss options to relocate the sewer main pipe at Stair Bridge, Old Hadlow Road in Tonbridge	No Likely significant effect - this measure does not provide for any physical on the ground development, merely to engage with Southern Water to discuss options to relocate the sewer main pipe at Stair Bridge, Old Hadlow Road in Tonbridge to improve incident response. As such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0202006018	Follow national planning policy framework and planning practice guidance on flood risk and coastal change in Tonbridge	No Likely significant effect - this measure does not provide for any physical on the ground development, it merely states that the Environment Agency will follow national planning policy framework and planning practice guidance on flood risk and coastal change in Tonbridge to ensure new development is appropriate in the Tonbridge. As such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0202006020	Increase flood storage at Leigh in Tonbridge	No Likely significant effect – This measure identifies that the Environment Agency will increase flood storage at Leigh in Tonbridge to accommodate the increase in flood risk arising from climate change in the Tonbridge. The level of detail available within the FRMP is not sufficient to undertake an HRA of this measure. The closest hydrologically sensitive European site is Ashdown Forest SPA and SAC which is 15km from the measure area. Due to the large distances involved it is unlikely that this measure provides a realistic linking impact pathway to the European site.

**Table 42. Screening table showing the Test of Likely Significant Effects results for measures contained within the Thames Flood Risk Management Plan applicable across the Walton-on-Thames, Thames (RoFRS) Flood Risk Area**

Measure ID	Measure	Likely Significant Effects on European sites
0201806055	Continue maintenance of designated flood assets in the Lower Mole Flood Alleviation area	No Likely significant effects, already consented – This is an ongoing measure to continue maintenance of designated flood assets in the Lower Mole Flood Alleviation area to ensure the standard of protection provided by the flood alleviation scheme is maintained in the Walton-on-Thames. This ongoing scheme has already been consented and as such will already have been subject to HRA.
0203206070	Have improved existing assets by replacing overfall weir with 3-6 large new gates as part of the River Thames Scheme in Teddington, Molesey and Sunbury weir	No Likely significant effects, already consented – This is an ongoing measure to improved existing assets by replacing overfall weir with 3-6 large new gates as part of the River Thames Scheme in Teddington, Molesey and Sunbury weir to increase flood flow capacities to ensure No increase in flood risk as a result of the new flood relief channel and to provide some incidental betterment in the Walton-on-Thames. This ongoing scheme has already been consented and as such will already have been subject to HRA.
0203206068	Have worked with local planning authorities and other partners to identify opportunities for design in the River Thames Scheme area	No Likely significant effects, already consented – This is an ongoing measure for the Environment Agency to work with local planning authorities and other partners to identify opportunities for design in the River Thames Scheme area to enable area master planning initiatives enabling economic growth by bringing land into more developable uses by reducing flood risk in the Walton-on-Thames This ongoing scheme has already been consented and as such will already have been subject to HRA.

Measure ID	Measure	Likely Significant Effects on European sites
0201906023	Work in partnership to identify technically and economically viable options in Hersham	No Likely significant effects, already consented – This is an ongoing measure for the Environment Agency to work in partnership to identify technically and economically viable options in Hersham to manage flood risk from the River Mole to over 3000 properties for flood event greater than a 1% Annual Event Probability and seek opportunities to deliver environmental benefits, such as, fish passage and wider amenity benefits in the Walton-on-Thames. This ongoing scheme has already been consented and as such will already have been subject to HRA.
0203206067	Work with Partners to install property resilience measures in the River Thames Scheme area	No Likely significant effects, already consented – This is an ongoing measure for the Environment Agency to work with Partners to install property resilience measures in the River Thames Scheme area to reduce flood risk to over 400 homes in the Walton-on-Thames. This ongoing scheme has already been consented and as such will already have been subject to HRA.
0203206066	Work with Partners to start building a 8 km flood relief channel alongside the River Thames in the River Thames Scheme area	No Likely significant effects, already consented – This is an ongoing measure for the Environment Agency to work with Partners to start building a 8 km flood relief channel alongside the River Thames in the River Thames Scheme area to reduce flood risk to 11,000 properties and 1,600 commercial properties, enhance the resilience of nationally important infrastructure including reducing the risk to 300km of highway, increase biodiversity, secure fish passages at key locations on main Thames river and achieve environmental net gain by creating habitats and accessible green spaces for the benefit of people and wildlife in the Walton-on-Thames. Since the flood relief channels traverse close to South West London Waterbodies SPA/Ramsar site, there is potential for effects from the scheme, but this is an ongoing measure that has already been consented and as such will already have been subject to HRA. The measure is simply a commitment to continue with it.

Measure ID	Measure	Likely Significant Effects on European sites
0203206069	Work with Partners to support deployment of temporary flood barriers in the River Thames Scheme area	No Likely significant effects, already consented – This is an ongoing measure for the Environment Agency to work with Partners to support deployment of temporary flood barriers in the River Thames Scheme area to reduce the impact of smaller, more frequent floods subject to National availability, resources and forecast in the Walton-on-Thames. This ongoing scheme has already been consented and as such will already have been subject to HRA.

**Table 43. Screening table showing the Test of Likely Significant Effects results for measures contained within the Thames Flood Risk Management Plan applicable across the Windsor, Thames (RoFSW) Flood Risk Area**

Measure ID	Measure	Likely Significant Effects on European sites
0219106008	Develop and maintain a live database (including GIS mapping) of flood incidents	No Likely significant effect - this measure does not provide for any physical on the ground development, it merely states that the Royal Borough of Windsor and Maidenhead will develop and maintain a live database (including GIS mapping) of flood incidents in the borough including the Windsor Flood Risk Area. As such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0219106002	Install improved telemetry system on key infrastructure in various locations	No Likely significant effects, already consented – This is an ongoing measure to install improved telemetry system on key infrastructure in various locations within Windsor to provide early warning for failure of pumps serving critical infrastructure locations, and trash screens in the Windsor. It is unlikely that the installation of improved telemetry would result in a linking impact pathway to a European site, further, this ongoing scheme has already been consented and as such will already have been subject to HRA.

Measure ID	Measure	Likely Significant Effects on European sites
0219106006	Prepare and publish Sustainable Drainage System Guidance establishing local standards	No Likely significant effect - this measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Further any planning document produced will be subject to HRA prior to adoption.

**Table 44. Screening table showing the Test of Likely Significant Effects results for measures contained within the Thames Flood Risk Management Plan applicable across the Wokingham, Thames (RoFRS) Flood Risk Area**

Measure ID	Measure	Likely Significant Effects on European sites
0203006056	Continue to investigate opportunities for natural flood management working with environmental and agricultural stakeholders in advance of the Environmental Land Management Scheme roll-out in Wokingham	No Likely significant effect - this measure does not provide for any physical on the ground development, merely to investigate opportunities for natural flood management. As such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Further any planning document produced will be subject to HRA prior to adoption.
0203006059	In partnership with South East River Trust progress appraisal of preferred options of Emmbrook river restoration project in Wokingham	No Likely significant effects, already consented – This is an ongoing measure for the Environment Agency to work in partnership with South East River Trust to progress appraisal of preferred options of Emmbrook river restoration project in Wokingham to reduce flood risk and provide environmental benefits in the Wokingham. This ongoing scheme has already been consented and as such will already have been subject to HRA.

Measure ID	Measure	Likely Significant Effects on European sites
0203006057	Investigate opportunities to further restore the river including de-culverting and assessing removal of structures where appropriate in Wokingham	No Likely significant effect - this measure does not provide for any physical on the ground development, merely to investigate opportunities to further restore the river including de-culverting and assessing removal of structures where appropriate in Wokingham to reduce flood risk and realise benefits for the local community and environment in the Wokingham. As such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0203006058	Investigate opportunities to influence relevant Local Planning Authority through Minerals Plan Consultation in Wokingham	No Likely significant effect - this measure does not provide for any physical on the ground development, merely to investigate opportunities to influence relevant Local Planning Authority through Minerals Plan Consultation in Wokingham to introduce floodplain continuity in the Wokingham. As such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0203006060	Work with the Local Planning Authority to assess the impact of land change use on flood risk in Wokingham	No Likely significant effect - this measure does not provide for any physical on the ground development, merely to work with the Local Planning Authority to assess the impact of land change use on flood risk in Wokingham to reduce flood risk by re-designating land in affected areas in the Wokingham. As such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

**Table 45. Screening table showing the Test of Likely Significant Effects results for measures contained within the Thames Flood Risk Management Plan applicable across the Wraysbury, Thames (RoFRS) Flood Risk Area**

Measure ID	Measure	Likely Significant Effects on European sites
0203006048	Build upon evidence gathered through River Thames Scheme study to progress appraisal of preferred options in Old Windsor and Wraysbury	<p>No Likely significant effect, but down-the-line HRA may be required - this measure does not provide for any physical on the ground development, merely to build upon evidence gathered through River Thames Scheme study to progress appraisal of preferred options in Old Windsor and Wraysbury to reduce flood risk and provide environmental benefits in the Wraysbury. As such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.</p> <p>It should be noted that due to the fact that the measure area is immediately adjacent to and may include areas of the South West London Waterbodies SPA and Ramsar site, any resulting schemes will likely require HRA to ensure no adverse effects upon the integrity of the sites results. In line with the guidance quoted in paragraph 2.27, down-the-line assessment will be required as further details emerge regarding what will be done to deliver this measure.</p>
0203006035	Continue to assess the viability of deploying temporary flood barriers	<p>No Likely significant effects, already consented, but down-the-line HRA may be required – This is an ongoing measure for the Environment Agency and Royal Borough of Windsor and Maidenhead to continue to assess the viability of deploying temporary flood barriers in Wraysbury to reduce the impact of smaller more frequent floods subject to National availability, resources and forecast in the Wraysbury. This ongoing scheme has already been consented and as such will already have been subject to HRA.</p> <p>It should be noted that due to the fact that the measure area is immediately adjacent to and may include areas of the South West London Waterbodies SPA and Ramsar site, any resulting schemes will likely require HRA to ensure no adverse effects upon the integrity of the sites results. In line with the guidance quoted in paragraph 2.27, down-the-line assessment will be required as further details emerge regarding what will be done to deliver this measure.</p>



Measure ID	Measure	Likely Significant Effects on European sites
0203006038	Develop a shared vision	<p>No Likely significant effects, already consented, but down-the-line HRA may be required – This is an ongoing measure for the Environment Agency and Royal Borough of Windsor and Maidenhead to develop a shared vision in Old Windsor and Wraysbury to reduce flood risk, enhance the resilience of nationally important infrastructure, where appropriate, and embed Natural Capital Approach principles in the Wraysbury. This ongoing scheme has already been consented and as such will already have been subject to HRA. In line with the guidance quoted in paragraph 2.27, down-the-line assessment will be required as further details emerge regarding what will be done to deliver this measure.</p> <p>It should be noted that due to the fact that the measure area is immediately adjacent to and may include areas of the South West London Waterbodies SPA and Ramsar site, any resulting schemes will likely require HRA to ensure no adverse effects upon the integrity of the sites results.</p>
0203006034	Use the newly developed "opportunities mapper" (online mapping system)	<p>No Likely significant effects, already consented – This is an ongoing measure for the Environment Agency and Royal Borough of Windsor and Maidenhead to use the newly developed "opportunities mapper" (online mapping system) in Old Windsor and Wraysbury to identify opportunities to recreate river corridors and wetland habitats in urban areas in the Wraysbury. This measure does not provide for any on the ground development. Further, this ongoing measure has already been consented and as such will already have been subject to HRA.</p>
0203006037	Work with communities to scope property flood resilience measures where capital projects costs outweighs benefits	<p>No Likely significant effects, already consented – This is an ongoing measure for the Environment Agency and Royal Borough of Windsor and Maidenhead to work with communities to scope property flood resilience measures where capital projects costs outweighs benefits in Old Windsor and Wraysbury to reduce flood risk in the Wraysbury. This measure does not provide for any on the ground development. Further, this ongoing measure has already been consented and as such will already have been subject to HRA.</p>

Measure ID	Measure	Likely Significant Effects on European sites
0203006036	Work with partners to identify critical infrastructure at risk of flooding	No Likely significant effects, already consented – This is an ongoing measure for the Environment Agency and Royal Borough of Windsor and Maidenhead to work with partners to identify critical infrastructure at risk of flooding in Old Windsor and Wraysbury to encourage appropriate action in the Wraysbury. This measure does not provide for any on the ground development. Further, this ongoing measure has already been consented and as such will already have been subject to HRA.

**Table 46. Screening table showing the Test of Likely Significant Effects results for measures contained within the Thames Flood Risk Management Plan applicable across the Yalding, Thames (RoFRS) Flood Risk Area**

Measure ID	Measure	Likely Significant Effects on European sites
0202006022	Carry out a review of legacy assets in Yalding	No Likely significant effect - this measure does not provide for any physical on the ground development, merely to review legacy assets. As such this measure will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0202006024	Carry out specific flood awareness activities through the medway flood partnership and the flood action campaign in Yalding	No Likely significant effect - this measure does not provide for any physical on the ground development, merely to conduct specific flood awareness activities. As such this measure will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0202006023	Follow national planning policy framework and planning practice guidance on flood risk and coastal change in Yalding	No Likely significant effect - this measure does not provide for any physical on the ground development, merely to follow national planning policy framework and planning practice guidance with respect to flood risk and coastal change. As such this measure will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0202006025	Investigate de-silting the River Beult at Yalding Town Bridge and the Medway downstream from Twyford Bridge in Yalding	No Likely significant effect - this measure does not provide for any physical on the ground development, merely to investigate de-silting the River Beult at Yalding Town Bridge and the Medway downstream from Twyford Bridge. As such this measure will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

**Table 47. Screening table showing the Test of Likely Significant Effects results for measures contained within the Thames Flood Risk Management Plan applicable across the Yateley, Thames (RoFRS) Flood Risk Area**

Measure ID	Measure	Likely Significant Effects on European sites
0209506003	Create a Catchment Plan including flood risk and water management for the Loddon catchment including the Blackwater area covering Yateley in Yateley village	No Likely significant effect, already consented - this ongoing measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites. Further any planning document produced will be subject to HRA prior to adoption.
0203206076	Work in partnership including with Hampshire County Council to commission an update to the hydraulic model in Blackwater catchment (Aldershot to Swallowfield)	No Likely significant effect, already consented - this ongoing measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.
0203206075	Work in partnership including with Hampshire County Council to progress appraisal of preferred options of North Yateley flood alleviation scheme in North Yateley	No Likely significant effect, already consented - this ongoing measure does not provide for any physical on the ground development, and as such will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0203206090	Work in partnership to investigate opportunities for natural flood management in advance of the Environment Land Management Scheme roll-out in Yateley	No Likely significant effect - this measure does not provide for any physical on the ground development, merely to work in partnership to investigate opportunities for natural flood management in advance of the Environment Land Management Scheme roll-out in Yateley to reduce downstream maximum water height of a flood or to delay the arrival of the flood peak downstream, increasing time to prepare in the Yateley. As such this measure will not in itself provide for any activities that could provide any potential linking impact pathways to European sites.

**Table 48. Screening table showing the Test of Likely Significant Effects results for measures contained within the Thames Flood Risk Management Plan applicable across the Colne Valley Strategic Area**

Measure ID	Measure	Likely Significant Effects on European sites
0201606024	Collaborate with key partners and stakeholders in the Colne Management Catchment to develop a Colne 2100 Strategy to consider and outline a short- to long-term approach for new and ongoing capital schemes, environmental betterment, stakeholder partnerships, and asset management, considering multiple climate change and growth scenarios in the West London Strategic Area.	No likely significant effect – a commitment to develop a strategy will not result in effects on European sites. The resulting strategy may do given that the Strategic Area includes at least part of the South-West London Waterbodies SPA/Ramsar site, but until the strategy is developed it is impossible to identify what, if any, effects may arise except that depending on the location and details of any specific initiatives they could involve disturbance of overwintering gadwall and shoveler or changes in water levels in those parts of the SPA/Ramsar and functionally-linked waterbodies that are not sealed reservoirs, such as the various gravel pits. Given the purpose of the strategy will be to manage fluvial flood risk effects are unlikely since the waterbodies are all offline but cannot be entirely dismissed. The strategy will need to be subject to its own HRA before it is adopted, in line with standard legislative requirements. Individual schemes that fall out from the strategy may also require down-the-line HRA before they gain planning consent.

Measure ID	Measure	Likely Significant Effects on European sites
0201606029	Complete a pilot community risk assessment in the Colne Management Catchment to improve place-based understanding of communities at risk of flooding and wider catchment pressures in the West London Strategic Area.	No likely significant effect – undertaking a community risk assessment will not affect European sites
0201606031	Complete a study using the updated River Ash model in the lower reaches and tributaries of the Colne catchment to improve our understanding of the complex flood mechanisms and interactions with multiple surrounding watercourses to assess the feasibility of a new capital scheme, including opportunities to work with natural processes, and implement the study's recommendations in the West London Strategic Area.	No likely significant effect – The area covered by this measure includes parts of South-West London Waterbodies SPA/Ramsar site such as Staines Reservoirs. However, completing a study to understand flood mechanisms and interactions with surrounding watercourses to inform a feasibility assessment for a new capital scheme will not affect European sites.
0201606023	Engage with local partners in Watford to design and deliver the Watford Rediscovering the River Colne Plan, which will incorporate measures to manage flood risk in the West London Strategic Area.	No likely significant effect – the Watford Rediscovering the River Colne is an existing project ( <a href="https://www.rivercolnewatford.co.uk/">https://www.rivercolnewatford.co.uk/</a> ) and Watford is remote from hydrologically sensitive European sites.
0201606027	Produce a reflective case study collating lessons learnt from engagement in association with the River Pinn projects to improve and share insight into best practices for complex projects in the West London Strategic Area.	No likely significant effect – producing a case study collating lessons learned will not affect European sites
0201606033	Progress the appraisal of the preferred options of the Colnbrook flood alleviation scheme in Colnbrook to reduce flood risk and provide environmental benefits in the West London Strategic Area.	No likely significant effect – the area covered by this measure (Colnbrook) is 1.3km from the South-West London Waterbodies SPA/Ramsar site. However, the closest part of the SPA/Ramsar site is Wraysbury Reservoir which is a sealed reservoir and therefore water levels are not linked to flood alleviation in Colnbrook.

Measure ID	Measure	Likely Significant Effects on European sites
0201606028	Seek and support early engagement on large third-party infrastructure projects that may impact flood risk in the lower Colne Management Catchment to influence policy, secure betterment of watercourses, improved management of surface water runoff, and reduction of flood risk in the West London Strategic Area.	No likely significant effect – seeking and supporting early engagement will not affect European sites
0201606025	Seek to provide guidance and support in the Pinn river catchment to design and implement targeted projects that will have a cumulative impact along the River Pinn to reduce flood risk from all sources in the West London Strategic Area.	No likely significant effect – providing guidance and support to maximise the potential for projects to reduce flood risk will not adversely affect European sites
0201606026	Commission works in three key areas along the River Pinn to scope and deliver projects to reduce flood risk, while working with natural processes and considering the impact of climate change and future growth in the West London Strategic Area.	No likely significant effect – A commitment to commission projects to reduce flood risk will not affect European sites and the River Pinn is not directly connected to the reservoirs and gravel pits of the South-West London Waterbodies SPA/Ramsar site
0201606030	Commission asset modelling studies in the lower reaches and tributaries of the Colne Management Catchment to identify opportunities within the complex river system to potentially decommission or adapt assets to contribute to improving Water Framework Directive status whilst causing No additional detriment to flood risk in the West London Strategic Area.	No likely significant effect – A commitment to commission asset modelling in order to identify opportunities to decommission assets will not affect European sites.

**Table 49. Screening table showing the Test of Likely Significant Effects results for measures contained within the Thames Flood Risk Management Plan applicable across the Middle Lee Valley Strategic Area**

Measure ID	Measure	Likely Significant Effects on European sites
0201606015	Carry out early engagement and work with local residents in the Lee Valley to scope potential property flood resilience schemes where capital projects are deemed not financially viable	No likely significant effect – committing to early engagement with local residents will not affect European sites
0201606016	Collaborate with partners in the Middle Lee Strategic Area to implement a natural flood management pilot to collect data and lessons learnt for flood risk mitigation and environmental co-benefits to expand the scientific evidence base for natural flood management	No likely significant effect – a commitment to implement a natural flood management pilot will not have adverse effects on European sites. Although Rye Meads SSSI (part of the Lee Valley SPA/Ramsar site) is within the area covered by this measure, the SSSI is contained entirely within Rye Meads Water Treatment Works. Although there is some backflow from the Tollhouse Stream into the SSSI it will be entirely possible to deliver a natural flood management pilot somewhere on the River Stort or elsewhere within the area without affecting the SSSI/SPA.
0201606017	Commission a feasibility study in and across the Lee Valley to understand the potential impact of de-culverting along key River Lee tributaries	No likely significant effect – commissioning a feasibility study will not affect European sites
0201606018	Commission an asset condition survey in and along key River Lee tributaries to understand culverted assets	No likely significant effect – commissioning an asset condition survey will not affect European sites
0201606019	Complete a full analysis in the Lower Lee and Upper Lee Management Catchments in line with the integrated Lee 2100 Programme to consider potential capital schemes, environmental and natural schemes, and strategic asset management whilst taking into account the impact of climate change and growth, and opportunities for carbon reduction, resilience-building, and adaptation	No likely significant effect – completing an analysis to identify potential capital and other schemes will not affect European sites. Individual schemes that fall out of that analysis may do so but those will not be identified until later and will be subject to their own HRA as necessary before being consented, as required by legislation.

Measure ID	Measure	Likely Significant Effects on European sites
0201606013	Engage with local partnerships on large projects in and along the River Stort to encourage betterment of the watercourses where possible in addition to ensuring a reduction in surface water runoff and fluvial flood risk	No likely significant effect – Encouraging betterment of watercourses and encouraging a reduction in surface runoff and fluvial flood risk will not adversely affect the Lee Valley SPA/Ramsar site as all elements of the SPA/Ramsar site are offline from the River Stort being either associated with Rye Meads Water Treatment Works or being former gravel pits.
0201606014	Work with area partners in Hertford to carry out a strategic study to investigate the fluvial, surface water, and groundwater interactions to inform future planning and to explore potential natural flood management and other opportunities to reduce flood risk and work toward creative solutions that contribute to the ecological and geomorphological improvement of ground and surface waterbodies	No likely significant effect – a commitment to carry out a study to understand fluvial, surface and groundwater interactions to inform future planning and exploration of flood risk solutions will not affect European sites.

**Table 50. Screening table showing the Test of Likely Significant Effects results for measures contained within the Thames Flood Risk Management Plan applicable across the Oxford to Cambridge Arc Strategic Area**

Measure ID	Measure	Likely Significant Effects on European sites
0200905181	Disseminate findings from the OxCam Flood Risk Investment Study in the Great Ouse catchment to provide an evidence base and advocacy tool to support decision makers to understand the optimum level and timing of investment in flood resilience under various growth and climate change scenarios	No likely significant effect – disseminating findings will not affect European sites



Measure ID	Measure	Likely Significant Effects on European sites
0203006091	Disseminate findings from the Oxcam Flood Risk Investment Study for investment in flood resilience and adaptation in Oxford to Cambridge Arc to provide an evidence base and advocacy tool to support decision makers to understand the optimum level and timing of investment in flood resilience under various growth and climate change scenarios	No likely significant effect – disseminating findings will not affect European sites
0206206012	Between 2021 and 2027, West Northamptonshire Council, North Northamptonshire Council and Buckinghamshire Council will work in partnership including with the Environment Agency to monitor the implementation of the Ox Cam Property Flood Resilience Pathfinder in the Oxford to Cambridge Arc to gather feedback and inform future uptake of Property Flood Resilience measures in the Oxford to Cambridge Arc Strategic Area.	No likely significant effect – monitoring implementation will not affect European sites
0203006092	Work in partnership to provide evidence and advice in Oxford to Cambridge Arc to support infrastructure providers, other Government departments involved in development planning and the proposed Development Corporations in taking account of future flooding and coastal change in their infrastructure investment	No likely significant effect – a commitment to provide evidence and advice will not affect European sites
0200905183	Work in partnership to support the development of an Integrated Water Management plan in the Great Ouse catchment to provide a vision and implementation strategy that facilitates adaptive planning for water management, taking a catchment based systems-orientated approach	No likely significant effect – A commitment to support the development of an Integrated Water Management Plan in the Great Ouse catchment will not affect European sites. The Management Plan itself, once produced, will require HRA in line with legislative requirements.

Measure ID	Measure	Likely Significant Effects on European sites
0203006093	Work in partnership to support the development on an Integrated Water Management plan in Oxford to Cambridge Arc to provide a vision and implementation strategy that facilitates adaptive planning for water management, taking a catchment based systems-orientated approach	No likely significant effect – A commitment to support the development of an Integrated Water Management Plan will not affect European sites. The Management Plan itself, once produced, will require HRA in line with legislative requirements.
0200905141	Work in partnership with other Risk Management Authorities and develop design guides for each Development Corporation Area in the Great Ouse catchment to explore and demonstrate in detail how water can be an integrated part of the Development Corporation Area so that each makes space for water, enhances the natural habitats, ensures water is used wisely and offers multiple uses with innovative technology to implement net gain measures across the Great Ouse catchment	No likely significant effect – A commitment to work in partnership to produce design guides will not affect European sites.
0200905180	Work in partnership with other Risk Management Authorities, subject to a successful funding bid through the Innovative Resilience Fund, in the Great Ouse catchment to shape how each Development Corporation Area can explore and demonstrate in detail how water can be an integrated part so that each part of the Development Corporation Area enhances the natural habitats, ensures water is used wisely and offers multiple uses with innovative technology to implement net gain measures across the Great Ouse catchment	No likely significant effect – A commitment to shaping each Development Corporation Areas exploration of integrating water into planning to enhance natural habitats and ensure water is used wisely will not affect European sites.
0200905182	Work with partners to provide evidence and advice in the Great Ouse catchment to support infrastructure providers, other Government departments involved in development planning, and the proposed Development Corporations in taking account of future flooding and coastal change in their infrastructure investment	No likely significant effect – A commitment to provide evidence and advice will not affect European sites.

Measure ID	Measure	Likely Significant Effects on European sites
0206206010	Operate a Property Flood Resilience grant scheme to allow residents who have been affected by internal flooding to apply for funding in Buckinghamshire to install property level protection and resilience measures to adapt and increase the resilience of properties to flooding	No likely significant effect – A commitment to operate a grant scheme will not affect European sites and Buckinghamshire does not contain any hydrologically sensitive European sites in that the qualifying features of European sites in Buckinghamshire (Chilterns Beechwoods SAC and Aston Rowant SAC) depend upon freely draining substrates.

**Table 51. Screening table showing the Test of Likely Significant Effects results for measures contained within the Thames Flood Risk Management Plan applicable across the Roding Valley Strategic Area**

Measure ID	Measure	Likely Significant Effects on European sites
0201606022	Design and construct the River Roding Project in Shonks Mill to create an upstream flood storage area to mitigate downstream fluvial flooding in Redbridge and combat the effects of the climate emergency and protect communities at highest flood risk in the Roding Valley Strategic Area.	No Likely significant effects, already consented – This is an ongoing measure to design and construct the River Roding Project in Shonks Mill to create an upstream flood storage area to mitigate downstream fluvial flooding in Redbridge and combat the effects of the climate emergency and protect communities at highest flood risk. This ongoing scheme has already been consented and as such will already have been subject to HRA.
0201606021	Pilot innovative communication techniques utilised in association with public information sharing about the River Roding Project	No Likely significant effects - Piloting communication techniques will not affect European sites.
0201606020	Produce a reflective case study collating lessons learnt from engagement in association with the River Roding Project to share and improve best engagement practices for complex, geographically dispersed projects in the Roding Valley Strategic Area.	No Likely significant effects - The production of a case study will not affect European sites.

## 5. Other plans and projects

- 5.1 This section covers potential for effects in combination with other plans and projects. While the potential for the FRMP to occur 'in combination' with other FRMPs was considered for inclusion, each FRMP is specific to a relatively hydrologically self-contained River Basin District, meaning that potential for effects in combination with each other generally only exists where a European site straddles multiple RBDs. In this case the Outer Thames Estuary SPA and Margate & Long Sands SAC straddle the boundary between the Thames FRMP and the South East and Anglian FRMPs. However, no mechanism has been identified for the actual measures in this FRMP (rather than any schemes that may emerge down-the-line) to operate in combination with those in the other FRMPs.
- 5.2 Natural England suggested inclusion of Diffuse Water Pollution Plans in the 'in combination' assessment of FRMP HRAs. Diffuse Water Pollution Plans are environmentally positive and intended to reduce diffuse pollution through fairly broad measures such as 'influencing management of farm infrastructure such as farm tracks, yards, buildings etc' through agri-environment schemes and similar. As such, no adverse likely significant effects or conflicts are expected to arise with the FRMP HRAs.
- 5.3 Potential in combination effects with Minerals and Waste Local Plans were also considered. However, Waste Local Plans are rarely technology-specific and potential impacts depend very much on the type of facility the market decides to bring forward on a given allocated site, or within a broad area of search where these exist. Minerals excavation can affect hydrologically sensitive European sites through dewatering for example. However, many minerals allocations are extensions to existing consented facilities to enable the site to be worked for longer (rather than to enable a net increase in consented extraction) and whose acceptability of effects on European sites are kept under review through the minerals planning authorities' Review of Consents process as required by the Conservation of Habitats and Species Regulations 2017 (as amended). In addition, many Minerals Plans include 'areas of search' for minerals rather than making specific allocations, leaving the market to bring forward proposals at the planning application level. As such, no specific likely significant effects in combination with the FRMP measures have been identified.

### Local Plans

- 5.4 The delivery of c. 521,000 dwellings to 2027 across the Thames area will result in the potential for a range of likely significant effects on the European sites surrounding the sub-region. Potential impact pathways include recreational pressure, a potential for increased atmospheric pollution from an increase in traffic on the road network close to European sites, possible loss of functionally-linked habitat for SPAs (depending on where the development takes place) and water quality impacts on European sites. Depending on where construction takes place direct disturbance impacts on SPA birds could also occur.
- 5.5 This section focusses only on hydrologically sensitive European sites and on the main European sites where adverse effects from residential and employment development have been identified in Local Plan HRAs. The coastal European sites in particular (Thames Estuary & Marshes SPA/Ramsar site, Medway Estuary & Marshes SPA/Ramsar site and The Swale SPA/Ramsar site) as well as Thames

Basin Heaths SPA (not really hydrologically sensitive) and North Meadow & Clattinger Farm SAC, are subject to increased levels of recreational pressure that has potential to result in increased levels of disturbance to sensitive species, particularly ground-nesting birds and wintering wildfowl, erosion from mechanical and abrasive damage and nutrient enrichment to sensitive species and habitats, and prevention of appropriate management or exacerbation of existing management difficulties, nutrient enrichment from dog walkers. To help address this issue in relation to increased recreational pressure stemming from new residential development at the coastal sites, the Birdwise North Kent Strategy has been formed. It requires developer contributions that are used to manage recreation and habitats and species. This includes the provision of rangers, communications, marketing and education initiatives, initiatives to encourage responsible dog walking, new/enhanced strategic greenspaces, site-specific visitor management and bird refuge projects and monitoring

- 5.6 Increased housing in Local Plans surrounding Lee Valley SPA/Ramsar and South West London Waterbodies SPA/Ramsar site could result in increased recreational disturbance of SPA birds but analyses undertaken for Local Plans in the area (such as the Epping Forest Local Plan) have generally identified that public access is sufficiently well managed at both these sites (or in the case of some parts of South West London Waterbodies, simply not permitted) that adverse effects on integrity are not expected to arise. Oxford Meadows SAC and North Meadow & Clattinger Farm SAC are both potentially vulnerable to increased recreational pressure from housing growth. North Meadow & Clattinger Farm is to be subject to a mitigation strategy to address recreational disturbance but Oxford Meadows SAC is not currently identified as being negatively affected.
- 5.7 Recreational activity at Oxford Meadows SAC is linked to population growth in Oxford City as that is the settlement from which the majority of recreational users of the meadows derive. Both sites are also close to major roads and are therefore vulnerable to increased nitrogen deposition from an increase in vehicle movements associated with increased population growth. Thames Estuary & Marshes SPA/Ramsar, Medway Estuary & Marshes SPA/Ramsar and The Swale SPA/Ramsar are all identified as being vulnerable to recreational pressure from housing growth in Local Plans and a strategic mitigation solution has been identified which covers all three SPAs. They are also potentially vulnerable to loss of functionally-linked land such as grazing marsh as a result of housing and employment development pressure. The Desmoulin's whorl snail populations of Kennet & Lambourn Floodplain SAC are vulnerable to increased phosphorus from discharge of treated sewage effluent, although the SAC has not been identified for nutrient neutrality in Natural England's latest guidance.
- 5.8 However, it is considered that the nature of the FRMP is such that no in combination effects will arise between adoption of the FRMP and delivery of housing and associated development across the sub-region. This is due either to the fact that the measures in the FRMP do not pose mechanisms to connect negatively to European sites, or because the measures of the FRMP are sufficiently high level (generally consisting of identifying a scheme and committing to its further development, design and implementation without committing to details) that they allow flexibility for

measures necessary to be designed into schemes to protect European sites to be incorporated at further planning tiers as each scheme is devised.

## **Drought Plans, Orders and Permits**

- 5.9 As discussed in the previous chapter, the Thames RBD encompasses European sites that are sensitive to a wide range of anthropogenic pressures, including hydrology, water quality, recreational pressure, coastal squeeze and others. Multiple simultaneously acting impacting pathways can compound negative impacts on qualifying habitats and species.
- 5.10 For example, water companies, under their duty of delivering potable water to households and businesses, can apply for drought permits, enabling them to abstract water beyond existing abstraction consents for an agreed period of time. Granting of drought periods has the potential for negative environmental impacts, particularly in European sites that are already subject to existing unfavourable flow conditions or water levels. While most measures included in the FRMP are likely to be positive for European sites by renaturalising hydrological function, inadequately planned or sited natural flood management and hard defence structures have the potential to negatively interact with Environment Agency Drought Orders and water company Drought Permits.
- 5.11 Drought conditions will also impose further pressures on designated sites such as by reducing water quality (reduced flows would typically result in higher nutrient concentrations, exacerbating the impact of treated sewage effluent) and water flow. In addition, climate change has the potential to increase the frequency and severity of drought conditions. Drought Plan Orders and Permits would compound drought issues and operate in-combination with impact pathways associated with the FRMP. However, drought plans will generally only operate at times of low water levels and low rainfall, which is the opposite scenario to when the majority of FRMP measures will be active.
- 5.12 Notwithstanding this, Drought Plans of water companies are subject to their own assessment process including HRA. This ensures that potential adverse effects on the integrity of European sites are adequately mitigated or, where this cannot be achieved, suitable compensation is provided. Overall, given that the Drought Plans of water companies undergo robust HRA appraisal, no in-combination effects with the FRMP will occur.

## **Environment Agency National Drought Plan**

- 5.13 The potential for in-combination effects of the Thames FRMP with the Environment Agency's National Drought Action Plan has been assessed and no in-combination impacts are anticipated. However, this should be considered further at the time of any potential implementation of drought management measures in liaison with the Environment Agency, particularly regarding local actions in the supply and water source catchment areas utilised by Thames Water, Anglian Water, SES Water and Affinity Water. Moreover, drought plans will generally only operate at times of low

water levels and low rainfall, which is the opposite scenario to when the majority of FRMP measures will be active.

## Water Resource Management Plans

- 5.14 Thames Water, Anglian Water, SES Water and Affinity Water have all produced Water Resource Management Plans. These set out the water supply strategy for their areas and could therefore have negative effects on European sites in their own right. However, Water Resource Management Plans are required to have their own HRAs undertaken. The HRAs for each of the latest adopted WRMPs considered whether their future supply strategy to meet water needs would affect European sites and it was concluded that the supply needs of their areas could be met without an adverse effect on the integrity of European sites, primarily through a combination of improved water efficiency measures and bringing new water supply areas into consideration that do not result in increased abstraction from European sites. As such, there would be no in combination effect with the FRMPs.
- 5.15 In addition to the WRMP, the water companies are also producing Drainage and Wastewater Management Plans (DWMP). However, those plans have not yet been published and therefore cannot be included in this assessment.

## River Basin Management Plans

- 5.16 River Basin Management Plans (RBMPs) describe the challenges that threaten the water environment and how these challenges can be managed and funded. The Thames FRMP covers the same area as the Thames River Basin Management Plan.
- 5.17 The 2022 RBMP sets out a series of measures to bring about improvements in the waterbodies covered by the RBMP. By definition, the measures in the RBMP are positive and includes the following initiatives: partnership working with farmers and land managers, sustainable management of water resources, restoring rivers and removing man-made barriers to fish migration and controlling invasive non-native species.
- 5.18 The RBMPs generally include projects that improve the water environment, for example by:
- enhancing and restoring rivers and floodplains
  - creating sustainable drainage
  - cleaning up metal pollution
  - improving habitats and water quality by addressing diffuse pollution issues
  - adapting weirs to provide fish passage
  - involving the community
  - using existing regulations to tackle agricultural and rural land pollution, such as lagoon construction
- 5.19 Since the measures within RBMPs are positive and are often necessary to restore freshwater aquatic European sites to favourable condition, there is no mechanism for them to have a negative effect on European sites in combination with the measures in the FRMP.

## Shoreline Management Plans and Local Flood Risk Management Plans

5.20 SMPs provide a policy context for shoreline/coastal zone management and development. As acknowledged throughout this document, SMPs and the Coastal Strategies that result from them often result in adverse effects on the integrity of European sites through a combination of coastal squeeze, loss of functionally-linked land for SPA/Ramsar birds, direct habitat loss due to defence footprint and changes to long-shore sediment transport and other aspects of natural sediment dynamics. They also present opportunities for positive effects on European sites if opportunities for managed realignment are included that will enable a more natural coastline to be established.

5.21 The following SMPs apply to the Thames RBD were considered for in-combination impacts:

- SMP 8 Essex and South Suffolk
- SMP 9 River Medway & Swale Estuary

5.22 The assessments for any potential in-combination impacts between these plans and the measures contained within the Thames FRMP were considered with regards to spatial proximity and/or hydrological and/or hydrographical connectivity. No in-combination likely significant effects were identified in respect of the policies set out in the plans because the FRMP essentially draws upon measures in the SMP and subsequent Coastal Strategies for its measures in the coastal environment.

5.23 Similarly, Local Flood Risk Management Plan measures for relevant areas within the River Basin District have been included within the FRMP so there is no potential for in combination effects as the same measures are contained in both sets of plans.

## Conclusion

5.24 It is considered that the nature of the FRMP is such that no in combination effects will arise between adoption of the FRMP and delivery of housing and associated development across the sub-region. This is due either to the fact that the measures in the FRMP do not pose mechanisms to connect negatively to European sites, or because the measures of the FRMP are sufficiently high level (generally consisting of identifying a scheme and committing to its further development, design and implementation without committing to details) that they allow flexibility for measures necessary to be designed into schemes to protect European sites to be incorporated at further planning tiers as each scheme is devised.



## 6. Conclusion

- 6.1 All European sites have been screened out of further assessment. There are no likely significant effects on any European site as a result of the Thames Flood Risk Management Plan 2021-2027, either alone or in combination with other projects and plans. This is due either to the fact that the measures in the FRMP do not pose mechanisms to connect negatively to European sites, or because the measures of the FRMP are sufficiently high level (generally consisting of identifying a scheme and committing to its further development, design and implementation without committing to details) that they allow flexibility for measures necessary to be designed into schemes to protect European sites to be incorporated at further planning tiers as each scheme is devised. It should be noted that notwithstanding references in the FRMP, scheme level HRAs will be undertaken as part of the business case for all schemes, and many schemes will also need planning consent, which will also be accompanied by an HRA, thus ensuring legal requirements are met.

# Appendix A Information on European Sites

- 6.2 Details pertaining to European sites (SACs, SPAs and Ramsar sites) such as qualifying features, Conservation Objectives and threats and pressures are taken from the Natural England Website<sup>24</sup> and Ramsar website<sup>25</sup>.
- 6.3 During consultation in August 2022, Natural England noted that condition assessments for SSSIs may not have been updated for more than a decade and full condition assessments may not have been published. As such, site vulnerabilities for European sites may not be up to date.

## A.1 Ashdown Forest SAC

### Qualifying Features

- 6.4 Annex I habitats that are a primary reason for selection of this site
- Northern Atlantic wet heaths with *Erica tetralix*
  - European dry heaths
- 6.5 Annex II species present as a qualifying feature, but not a primary reason for site selection
- Great-crested newt *Triturus cristatus*

### Conservation Objectives

- 6.6 With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features' listed below), and subject to natural change.
- 6.7 Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:
- the extent and distribution of qualifying natural habitats and habitats of qualifying species
  - the structure and function (including typical species) of qualifying natural habitats
  - the structure and function of the habitats of qualifying species
  - the supporting processes on which qualifying natural habitats and the habitats of qualifying species rely
  - the populations of qualifying species
  - the distribution of qualifying species within the site

### Threats / Pressures to Site Integrity

- 6.8 Natural England's Site Improvement Plan and Supplementary Advice on Conservation Objectives lists the following threats / pressures to the site integrity of the Ashdown Forest SAC:

- change in land management
- air pollution: Impact of atmospheric nitrogen deposition
- public access / disturbance
- hydrological changes

## A.2 Cothill Fen SAC

### Qualifying Features

6.9 The SAC is designated for its Annex I habitats:

- Alkaline fens; Calcium-rich springwater-fed fens
- Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*); Alder woodland on floodplains (Priority habitat)

### Conservation Objectives

6.10 With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features' listed below), and subject to natural change.

6.11 Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:

- the extent and distribution of qualifying natural habitats
- the structure and function (including typical species) of qualifying natural habitats, and
- the supporting processes on which qualifying natural habitats rely

### Threats / Pressures to Site Integrity

6.12 Natural England's Site Improvement Plan and Supplementary Advice on Conservation Objectives lists the following threats / pressures to the site integrity of the Cothill Fen SAC.

- water pollution
- hydrological changes (ground and surface water)
- atmospheric nitrogen deposition

## A.3 Epping Forest SAC

### Qualifying Features

6.13 The site is designated for its Annex I habitats:

- Northern Atlantic wet heaths with *Erica tetralix*; Wet heathland with cross-leaved heath
- European dry heaths

- Atlantic acidophilous beech forests with *Ilex* and sometimes also *Taxus* in the shrublayer (*Quercion roburi-petraeae* or *Ilici-Fagenion*); Beech forests on acid soils

6.14 The site is designated for its Annex II species:

- Stag beetle *Lucanus cervus*

## Conservation Objectives

6.15 With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features' listed below), and subject to natural change.

6.16 Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:

- the extent and distribution of qualifying natural habitats and habitats of qualifying species
- the structure and function (including typical species) of qualifying natural habitats
- the structure and function of the habitats of qualifying species
- the supporting processes on which qualifying natural habitats and the habitats of qualifying species rely
- the populations of qualifying species
- the distribution of qualifying species within the site

## Threats / Pressures to Site Integrity

6.17 Natural England's Site Improvement Plan and Supplementary Advice on Conservation Objectives lists the following threats / pressures to the site integrity of the SAC:

- atmospheric nitrogen pollution
- under grazing
- public access/ disturbance
- changes in species distribution
- inappropriate water levels
- water pollution
- invasive species
- disease

## A.4 Kennet and Lambourne Floodplain SAC

### Qualifying Features

6.18 This SAC is designated for its Annex II species:

- Desmoulin's whorl snail *Vertigo moulinsiana*

## Conservation Objectives

6.19 With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features' listed below), and subject to natural change.

6.20 Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:

- the extent and distribution of the habitats of qualifying species
- the structure and function of the habitats of qualifying species
- the supporting processes on which the habitats of qualifying species rely
- the populations of qualifying species
- the distribution of qualifying species within the site

## Threats / Pressures to Site Integrity

6.21 Natural England's Site Improvement Plan and Supplementary Advice on Conservation Objectives lists the following threats / pressures to the site integrity of the SAC:

- water pollution
- hydrological changes
- changes in land management
- inappropriate water levels

## A.5 Kennet Valley Alderwoods SAC

### Qualifying Features

6.22 This SAC is designated for its Annex I habitats:

- Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*). (Annex I priority habitat: Alder woodland on floodplains)\*

## Conservation Objectives

6.23 With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features' listed below), and subject to natural change.

6.24 Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:

- the extent and distribution of the qualifying natural habitats
- the structure and function (including typical species) of the qualifying natural habitats
- the supporting processes on which the qualifying natural habitats rely

## Threats / Pressures to Site Integrity

6.25 Natural England's Site Improvement Plan and Supplementary Advice on Conservation Objectives lists the following threats / pressures to the site integrity of the SAC:

- inappropriate water levels
- game management

## A.6 Little Wittenham SAC

### Qualifying Features

6.26 This SAC is designated for its Annex II species:

- Great crested newt *Triturus cristatus*

### Conservation Objectives

6.27 With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features' listed below), and subject to natural change.

6.28 Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:

- the extent and distribution of habitats of qualifying species
- the structure and function of the habitats of qualifying species
- the supporting processes on which the habitats of qualifying species rely
- the populations of qualifying species
- the distribution of qualifying species within the site

## Threats / Pressures to Site Integrity

6.29 Natural England's Site Improvement Plan and Supplementary Advice on Conservation Objectives lists the following threats / pressures to the site integrity of the SAC:

- invasive Species
- public access/ disturbance
- surface and groundwater quality and quantity

## A.7 North Meadow and Clattinger Farm SAC

### Qualifying Features

6.30 This SAC is designated for its Annex I habitats

- Lowland hay meadows (*Alopecurus pratensis*, *Sanguisorba officinalis*)

## Conservation Objectives

6.31 With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features' listed below), and subject to natural change.

6.32 Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:

- the extent and distribution of the qualifying natural habitats
- the structure and function (including typical species) of the qualifying natural habitats
- the supporting processes on which the qualifying natural habitats rely

## Threats / Pressures to Site Integrity

6.33 Natural England's Site Improvement Plan and Supplementary Advice on Conservation Objectives lists the following threats / pressures to the site integrity of the SAC:

- inappropriate water levels
- habitat fragmentation
- commons management
- public access / disturbance
- water pollution

## A.8 Oxford Meadows SAC

### Qualifying Features

6.34 This SAC is designated for its Annex I habitats

- Lowland hay meadows (*Alopecurus pratensis*, *Sanguisorba officinalis*)

6.35 This SAC is designated for its Annex II species:

- Creeping marshwort *Apium repens*

### Conservation Objectives

6.36 With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features' listed below), and subject to natural change.

6.37 Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:

- the extent and distribution of qualifying natural habitats and habitats of qualifying species
- the structure and function (including typical species) of qualifying natural habitats

- the structure and function of the habitats of qualifying species
- the supporting processes on which qualifying natural habitats and the habitats of qualifying species rely
- the populations of qualifying species
- the distribution of qualifying species within the site

## Threats / Pressures to Site Integrity

6.38 Natural England's Site Improvement Plan and Supplementary Advice on Conservation Objectives lists the following threats / pressures to the site integrity of the SAC:

- hydrological Changes
- invasive species

## A.9 Peter's Pit SAC

### Qualifying Features

6.39 This SAC is designated for its Annex II species:

- Great crested newt *Triturus cristatus*

### Conservation Objectives

6.40 With regard to the natural habitats and/or species for which the site has been designated (the 'Qualifying Features' listed below), and subject to natural change.

6.41 Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:

- the extent and distribution of the habitats of qualifying species
- the structure and function of the habitats of qualifying species
- the supporting processes on which the habitats of qualifying species rely
- the populations of qualifying species
- the distribution of qualifying species within the site

## Threats / Pressures to Site Integrity

6.42 Whilst Natural England's Site Improvement Plan and Supplementary Advice on Conservation Objectives do not list threats / pressures to the site integrity of the SAC, it should be noted that the ponds that support the great crested newt population at this SAC are groundwater fed and have widely fluctuating water levels. This should be maintained to support the meta population of great crested newts for which the SAC is designated.

## A.10 River Lambourne SAC

### Qualifying Features

6.43 This SAC is designated for its Annex I habitats:



- Water courses of plain to montane levels with the *Ranunculus fluitantis* and *Callitriche-Batrachion*

6.44 This SAC is designated for its Annex II species:

- Brook lamprey *Lampetra planeri*
- Bullhead *Cottus gobio*

## Conservation Objectives

6.45 With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features' listed below), and subject to natural change.

6.46 Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:

- the extent and distribution of qualifying natural habitats and habitats of qualifying species
- the structure and function (including typical species) of qualifying natural habitats
- the structure and function of the habitats of qualifying species
- the supporting processes on which qualifying natural habitats and the habitats of qualifying species rely
- the populations of qualifying species
- the distribution of qualifying species within the site

## Threats / Pressures to Site Integrity

6.47 Natural England's Site Improvement Plan and Supplementary Advice on Conservation Objectives lists the following threats / pressures to the site integrity of the SAC:

- water pollution
- hydrological changes
- changes in land management
- inappropriate water levels

## A.11 Shortheath Common SAC

### Qualifying Features

6.48 Shortheath Common qualifies as a SAC for its habitats. The site contains the Habitats Directive Annex I habitats of:

- Transition mires and quaking bogs
- European dry heaths
- Bog woodland

## Conservation Objectives

6.49 With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features' listed below), and subject to natural change.

6.50 Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:

- the extent and distribution of the qualifying natural habitats
- the structure and function (including typical species) of the qualifying natural habitats
- the supporting processes on which the qualifying natural habitats rely

## Threats / Pressures to Site Integrity

6.51 The key vulnerabilities to the SAC are:

- inappropriate scrub control
- public access/ disturbance
- direct impact from 3rd Party
- atmospheric nitrogen pollution
- hydrological changes

## A.12 Thursley, Ash, Pribright and Chobham SAC

### Qualifying Features

6.52 This SAC is designated for its Annex I habitats:

- Depressions on peat substrates of the Rhynchosporion
- European dry heaths
- Northern Atlantic wet heaths with *Erica tetralix*. (Wet heathland with cross-leaved heath)

### Conservation Objectives

6.53 With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features' listed below), and subject to natural change.

6.54 Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:

- the extent and distribution of qualifying natural habitats
- the structure and function (including typical species) of qualifying natural habitats
- the supporting processes on which qualifying natural habitats rely

## Threats / Pressures to Site Integrity

6.55 The key vulnerabilities to the SAC are:

- undergrazing
- forestry and woodland management
- hydrological changes
- inappropriate scrub control
- invasive species
- wildfire/ arson
- atmospheric nitrogen deposition

## A.13 Woolmer Forest SAC

### Qualifying Features

6.56 This SAC is designated for its Annex I habitats:

- Natural dystrophic lakes and ponds
- Northern Atlantic wet heaths with *Erica tetralix*
- European dry heaths
- Transition mires and quaking bogs
- Depressions on peat substrates of the *Rhynchosporion*

### Conservation Objectives

6.57 With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features' listed below), and subject to natural change.

6.58 Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:

- the extent and distribution of the qualifying natural habitats
- the structure and function (including typical species) of the qualifying natural habitats
- the supporting processes on which the qualifying natural habitats rely

## Threats / Pressures to Site Integrity

6.59 The key vulnerabilities to the SAC are:

- changes in land management
- invasive species
- hydrological changes
- feature location/ extent/ condition unknown
- military
- wildfire/ arson

- atmospheric nitrogen deposition

## A.14 Ashdown Forest SPA

### Qualifying Features

6.60 The site is designated as a SPA for the following individual species listed in Annex I of the Wild Birds Directive (Article 4.1):

6.61 During the breeding season the SPA regularly supports:

- Dartford warbler *Sylvia undata*
- Nightjar *Caprimulgus europaeus*

### Conservation Objectives

6.62 With regard to the SPA and the individual species and/or assemblage of species for which the site has been classified (the 'Qualifying Features' listed below), and subject to natural change.

6.63 Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring:

- the extent and distribution of the habitats of the qualifying features
- the structure and function of the habitats of the qualifying features
- the supporting processes on which the habitats of the qualifying features rely
- the population of each of the qualifying features
- the distribution of the qualifying features within the site

### Threats / Pressures to Site Integrity

6.64 The following threats / pressures are identified in Natural England's Site Improvement Plan and Supplementary Advice for the Ashdown Forest SPA:

- change in land management
- air pollution: Impact of atmospheric nitrogen deposition
- public access / disturbance
- hydrological changes

## A.15 Benfleet and Southend Marshes SPA

### Qualifying Features

6.65 The SPA is designated for its Annex I Species:

- Dark-bellied brent goose *Branta bernicla bernicla* (Non-breeding)
- Ringed plover *Charadrius hiaticula* (non-reeding)
- Grey plover *Pluvialis squatarola* (Non-breeding)
- Red knot *Calidris canutus* (Non-breeding)
- Dunlin *Calidris alpina alpina* (Non-breeding)

- Waterbird assemblage

## Conservation Objectives

- 6.66 With regard to the SPA and the individual species and/or assemblage of species for which the site has been classified (the 'Qualifying Features' listed below), and subject to natural change.
- 6.67 Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring:
- the extent and distribution of the habitats of the qualifying features
  - the structure and function of the habitats of the qualifying features
  - the supporting processes on which the habitats of the qualifying features rely
  - the population of each of the qualifying features
  - the distribution of the qualifying features within the site

## Threats / Pressures to Site Integrity

- 6.68 The following threats / pressures are identified in Natural England's Site Improvement Plan and Supplementary Advice for the SPA:
- coastal squeeze
  - hydrological sensitivity to balance of freshwater and saline inputs
  - public access/ disturbance
  - invasive species
  - changes in species distribution
  - fisheries: commercial marine and estuarine
  - vehicles: illicit
  - air pollution: risk of atmospheric nitrogen deposition

## A.16 Foulness (Mid-Essex Coats Phase 5) SPA

### Qualifying Features

- 6.69 The SPA is designated for its Annex I Species:
- Dark-bellied brent goose *Branta bernicla bernicla* (Non-breeding)
  - Hen harrier *Circus cyaneus* (Non-breeding)
  - Eurasian oystercatcher *Haematopus ostralegus* (Non-breeding)
  - Pied avocet *Recurvirostra avosetta* (Breeding)
  - Ringed plover *Charadrius hiaticula* (Breeding)
  - Grey plover *Pluvialis squatarola* (Non-breeding)
  - Red knot *Calidris canutus* (Non-breeding)
  - Bar-tailed godwit *Limosa lapponica* (Non-breeding)
  - Common redshank *Tringa totanus* (Non-breeding)
  - Sandwich tern *Sterna sandvicensis* (Breeding)

- Common tern *Sterna hirundo* (Breeding)
- Little tern *Sterna albifrons* (Breeding)
- Waterbird assemblage

## Conservation Objectives

6.70 With regard to the SPA and the individual species and/or assemblage of species for which the site has been classified (the 'Qualifying Features' listed below), and subject to natural change.

6.71 Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring:

- the extent and distribution of the habitats of the qualifying features
- the structure and function of the habitats of the qualifying features
- the supporting processes on which the habitats of the qualifying features rely
- the population of each of the qualifying features
- the distribution of the qualifying features within the site

## Threats / Pressures to Site Integrity

6.72 The following threats / pressures are identified in Natural England's Site Improvement Plan and Supplementary Advice for the SPA:

- coastal squeeze
- hydrological sensitivity to balance of freshwater and saline inputs
- public access/ disturbance
- invasive species
- changes in species distribution
- fisheries: commercial marine and estuarine
- vehicles: illicit
- air pollution: risk of atmospheric nitrogen deposition

## A.17 Lee Valley SPA

### Qualifying Features

6.73 The SPA is designated for its Annex I Species:

- Bittern *Botaurus stellaris* (non-breeding)
- Shoveler *Anas clypeata* (non-breeding)
- Gadwall *Anas strepera* (non-breeding)

### Conservation Objectives

6.74 With regard to the SPA and the individual species and/or assemblage of species for which the site has been classified (the 'Qualifying Features' listed below), and subject to natural change.

6.75 Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring:

- the extent and distribution of the habitats of the qualifying features
- the structure and function of the habitats of the qualifying features
- the supporting processes on which the habitats of the qualifying features rely
- the population of each of the qualifying features
- the distribution of the qualifying features within the site

## Threats / Pressures to Site Integrity

6.76 The following threats / pressures are identified in Natural England's Site Improvement Plan and Supplementary Advice for the SPA:

- water pollution
- hydrological changes
- public access/ disturbance
- inappropriate scrub control
- fisheries: fish stocking
- invasive species
- inappropriate cutting/ mowing
- air pollution: risk of atmospheric nitrogen deposition

## A.18 Medway Estuary SPA

### Qualifying Features

6.77 The SPA is designated for its Annex I Species:

- Dark-bellied brent goose *Branta bernicla bernicla* (Non-breeding)
- Common shelduck *Tadorna tadorna* (Non-breeding)
- Northern pintail *Anas acuta* (Non-breeding)
- Pied avocet *Recurvirostra avosetta* (Breeding)
- Pied avocet *Recurvirostra avosetta* (Non-breeding)
- Ringed plover *Charadrius hiaticula* (Non-breeding)
- Grey plover *Pluvialis squatarola* (Non-breeding)
- Red knot *Calidris canutus* (Non-breeding)
- Dunlin, *Calidris alpina alpina* (Non-breeding)
- Common redshank *Tringa totanus* (Non-breeding)
- Little tern *Sterna albifrons* (Breeding)
- Waterbird assemblage
- Breeding bird assemblage

## Conservation Objectives

6.78 With regard to the SPA and the individual species and/or assemblage of species for which the site has been classified (the 'Qualifying Features' listed below), and subject to natural change.

6.79 Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring:

- the extent and distribution of the habitats of the qualifying features
- the structure and function of the habitats of the qualifying features
- the supporting processes on which the habitats of the qualifying features rely
- the population of each of the qualifying features
- the distribution of the qualifying features within the site

## Threats / Pressures to Site Integrity

6.80 The following threats / pressures are identified in Natural England's Site Improvement Plan and Supplementary Advice for the SPA:

- coastal squeeze
- hydrological sensitivity to balance of freshwater and saline inputs
- public access/ disturbance
- invasive species
- changes in species distribution
- fisheries: commercial marine and estuarine
- vehicles: illicit
- air pollution: risk of atmospheric nitrogen deposition

## A.19 Outer Thames Estuary SPA

### Qualifying Features

6.81 The SPA is designated for its Annex I Species:

- Red-throated diver *Gavia stellata*
- Common tern *Sterna hirundo*
- Little tern *Sternula albifrons*

### Conservation Objectives

6.82 With regard to the SPA and the individual species and/or assemblage of species for which the site has been classified (the 'Qualifying Features' listed below), and subject to natural change.

6.83 Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring:

- the extent and distribution of the habitats of the qualifying features



- the structure and function of the habitats of the qualifying features
- the supporting processes on which the habitats of the qualifying features rely
- the population of each of the qualifying features
- the distribution of the qualifying features within the site

## Threats / Pressures to Site Integrity

6.84 The following threats / pressures are identified in Natural England's Site Improvement Plan and Supplementary Advice for the SPA:

- hydrological sensitivity to balance of freshwater and saline inputs
- fisheries: commercial marine and estuarine
- low levels of winter disturbance (from both noise and visual presence)
- low risk of direct bird strike from wind turbines
- good water quality
- limited dredging

## A.20 South West London Waterbodies SPA

### Qualifying Features

6.85 The SPA is designated for its Annex I Species:

- Northern shoveler *Anas clypeata*
- Gadwall *Anas strepera*

### Conservation Objectives

6.86 With regard to the SPA and the individual species and/or assemblage of species for which the site has been classified (the 'Qualifying Features' listed below), and subject to natural change.

6.87 Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring:

- the extent and distribution of the habitats of the qualifying features
- the structure and function of the habitats of the qualifying features
- the supporting processes on which the habitats of the qualifying features rely
- the population of each of the qualifying features
- the distribution of the qualifying features within the site

## Threats / Pressures to Site Integrity

6.88 The following threats / pressures are identified in Natural England's Site Improvement Plan and Supplementary Advice for the SPA:

- public access/ disturbance
- changes in species distribution
- invasive species

- natural changes to site conditions
- fisheries: fish stocking
- inappropriate weed control
- invasive species
- hydrological changes

## A.21 Thames Estuary and Marshes SPA

### Qualifying Features

6.89 The SPA is designated for its Annex I Species:

- Dunlin *Calidris alpina alpina* (Non-breeding)
- Red knot *Calidris canutus* (Non-breeding)
- Ringed plover *Charadrius hiaticula* (non-reeding)
- Hen harrier *Circus cyaneus* (Non-breeding)
- Black-tailed godwit *Limosa limosa islandica* (Non-breeding)
- Grey plover *Pluvialis squatarola* (Non-breeding)
- Pied avocet *Recurvirostra avosetta* (Non-breeding)
- Common redshank *Tringa totanus* (Non-breeding)

### Conservation Objectives

6.90 With regard to the SPA and the individual species and/or assemblage of species for which the site has been classified (the 'Qualifying Features' listed below), and subject to natural change.

6.91 Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring:

- the extent and distribution of the habitats of the qualifying features
- the structure and function of the habitats of the qualifying features
- the supporting processes on which the habitats of the qualifying features rely
- the population of each of the qualifying features
- the distribution of the qualifying features within the site

### Threats / Pressures to Site Integrity

6.92 The following threats / pressures are identified in Natural England's Site Improvement Plan and Supplementary Advice for the SPA:

- coastal squeeze
- public access/disturbance
- invasive species
- changes in species distribution
- fisheries: commercial marine and estuarine
- vehicles: illicit

- air pollution

## A.22 The Swale SPA

### Qualifying Features

6.93 The SPA is designated for its Annex I Species:

During the breeding season:

- Avocet *Recurvirostra avosetta*
- Marsh Harrier *Circus aeruginosus*
- Mediterranean Gull *Larus melanocephalus*

Over winter:

- Avocet *Recurvirostra avosetta*
- Bar-tailed Godwit *Limosa lapponica*
- Golden Plover *Pluvialis apricaria*
- Hen Harrier *Circus cyaneus*
- Black-tailed Godwit *Limosa limosa islandica*
- Grey Plover *Pluvialis squatarola*
- Knot *Calidris canutus*
- Pintail *Anas acuta*
- Redshank *Tringa totanus*
- Shoveler *Anas clypeata*
- Dark-bellied Brent goose *Branta bernicla bernicla*
- Dunlin *Calidris alpina alpina*

On passage:

- Ringed Plover *Charadrius hiaticula*

6.94 The SPA also qualifies under Article 4.2 of the Directive (79/409/EEC) by regularly supporting at least 20,000 waterfowl (Over winter, the area regularly supports 65,390 individual waterfowl (5 year peak mean 1991/2 - 1995/6))

### Conservation Objectives

6.95 With regard to the SPA and the individual species and/or assemblage of species for which the site has been classified (the 'Qualifying Features' listed below), and subject to natural change.

6.96 Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring:

- the extent and distribution of the habitats of the qualifying features
- the structure and function of the habitats of the qualifying features
- the supporting processes on which the habitats of the qualifying features rely
- the population of each of the qualifying features
- the distribution of the qualifying features within the site

## Threats / Pressures to Site Integrity

6.97 The following threats / pressures are identified in Natural England's Site Improvement Plan and Supplementary Advice for the SPA:

- coastal squeeze
- public access/ disturbance
- invasive species
- changes in species distribution
- fisheries: commercial marine and estuarine
- vehicles: illicit
- air pollution: risk of atmospheric nitrogen deposition
- hydrological sensitivity to balance of freshwater and saline inputs

## A.23 Benfleet and Southend Marshes Ramsar site

### Qualifying Features

6.98 The site is designated a Ramsar site under the following criterion:

- Criterion 5: Assemblages of international importance: Species with peak counts in winter:
  - 32867 waterfowl (5 year peak mean 1998/99-2002/2003)
- Criterion 6: species/populations occurring at levels of international importance. Qualifying Species/populations (as identified at designation):  
Species with peak counts in spring/autumn:
  - Dark-bellied brent goose *Branta bernicla bernicla*,
  - Grey plover *Pluvialis squatarola*
  - Red knot *Calidris canutus islandica*
  - Dunlin *Calidris alpina alpina*

## Threats / Pressures to Site Integrity

- coastal squeeze
- public access/disturbance
- invasive species
- changes in species distribution
- fisheries: commercial marine and estuarine
- vehicles: illicit
- air pollution: risk of atmospheric nitrogen
- hydrological sensitivity to balance of freshwater and saline inputs
- bait and shell fish gathering
- sewage treatment and disposal
- permanent pastoral grazing, conservation and birdwatching and other recreational activities

## A.24 Foulness (Mid-Essex Coast Phase 5) Ramsar site

### Qualifying Features

6.99 The site is designated a Ramsar site under the following criterion:

- Ramsar Criterion 1a: This site qualifies by virtue of the extent and diversity of saltmarsh habitat present. This and four sites in the Mid-Essex Coast Ramsar site complex, include a total of 3,237 ha, that represent 70% of the saltmarsh habitat in Essex and 7% of the total area of saltmarsh in Britain.
- Ramsar Criterion 2a: The site supports a number of nationally – rare and nationally – scarce plant species, and British Red Data Book invertebrates
- Ramsar Criterion 2b: The site contains extensive saltmarsh habitat, with areas supporting full and representative sequences of saltmarsh plant communities covering the range of variation in Britain.
- Ramsar Criterion 3a: Internationally important waterfowl assemblages (greater than 20,000 birds)
- Ramsar Criterion 3c: Overwinter the site regularly supports internationally important populations of: bar-tailed Godwit *Limosa lapponica*, dark-bellied Brent Goose *Branta bernicula bernicula*, grey Plover *Pluvialis squatarola*, knot *Calidris canutus*, oystercatcher *Haematopus ostralegus* and redshank *Tringa tetanus*.

### Threats / Pressures to Site Integrity

- erosion
- persistent drought
- pollution – pesticide/ agricultural runoff
- hydrological sensitivity to balance of freshwater and saline inputs

## A.25 Lee Valley Ramsar site

### Qualifying Features

6.100 The site is designated a Ramsar site under the following criterion:

- Criterion 2: by supporting the nationally scarce plant species whorled water-milfoil *Myriophyllum verticillatum* and the rare or vulnerable invertebrate *Micronecta minutissima* (a water-boatman).

### Threats / Pressures to Site Integrity

- water pollution
- hydrological changes
- public disturbance
- inappropriate scrub control
- fishing
- air pollution

- inappropriate cutting and mowing
- invasive species

## A.26 Medway Estuary and Marshes Ramsar site

### Qualifying Features

6.101 The site is designated a Ramsar site under the following criterion:

- Ramsar criterion 2: The site supports nationally scarce plants and at least seven British Red data book invertebrates.
- Ramsar criterion 5: Assemblages of international importance: Species with peak counts in winter: 47637 waterfowl (5 year peak mean 1998/99-2002/2003).
- Ramsar criterion 6: – Species/populations occurring at levels of international importance. The site has bird species occurring in internationally important numbers: Redshank, grey plover (spring/autumn), dark-bellied brent goose, shelduck, pintail, red knot, ringed plover, dunlin (winter)

### Threats / Pressures to Site Integrity

- coastal squeeze
- public access/ disturbance
- invasive species
- changes in species distribution
- fisheries: commercial marine and estuarine
- vehicles: illicit
- air pollution: risk of atmospheric nitrogen deposition
- hydrological sensitivity to balance of freshwater and saline inputs

## A.27 South West London Waterbodies Ramsar site

### Qualifying Features

6.102 The site is designated a Ramsar site under the following criterion:

- Ramsar criterion 6: Over winter the site regularly supports internationally important populations of: gadwall *Anas strepera*, and shoveler *Anas clypeata*

### Threats / Pressures to Site Integrity

- hydrological sensitivity to balance of freshwater and saline inputs
- vegetation succession
- water diversion for irrigation / domestic/ industrial use
- recreational/ tourism disturbance
- general disturbance from human activities
- mining exploration / exploitation
- transport infrastructure development

- industry development
- urban use development

## A.28 Thames Estuary and Marshes Ramsar site

### Qualifying Features

6.103 The site is designated a Ramsar site under the following criterion:

- Ramsar site under criterion 6 for species that over-winter and over-summer. Over-summering species include
  - Ringed plover *Charadrius hiaticula*
  - Black-tailed godwit *Limosa canutus islandica*
- Over-wintering species include
  - Grey plover *Pluvialis squatarola*
  - Red knot *Calidris canutus islandica*
  - Dunlin *Calidris alpina alpina*
  - Common redshank *Tringa tetanus tetanus*
- In addition, the site qualifies as a Ramsar under criterion 2, by supporting the endangered least lettuce *Lactuca saligna* and at least 14 nationally scarce plants of wetland habitats, including bulbous foxtail *Alopecurus bulbosus*

### Threats / Pressures to Site Integrity

- coastal squeeze
- public access/disturbance
- invasive species
- changes in species distribution
- fisheries: commercial marine and estuarine
- vehicles: illicit
- air pollution: risk of atmospheric nitrogen
- hydrological sensitivity to balance of freshwater and saline inputs

## A.29 The Swale Ramsar site

### Qualifying Features

6.104 The site is designated a Ramsar site under the following criterion:

- Ramsar criterion 2: The site supports nationally scarce plants and at least seven British Red data book invertebrates.
- Ramsar criterion 5: Assemblages of international importance: Species with peak counts in winter: 77501 waterfowl (5 year peak mean 1998/99-2002/2003).
- Ramsar criterion 6: Species/populations occurring at levels of international importance.

Species with peak counts in spring/autumn:

- Common redshank *Tringa totanus tetanus*

Species with peak counts in winter:

- Dark-bellied brent goose *Branta bernicla bernicla*
- Grey plover *Pluvialis squatarola*

Species/populations identified subsequent to designation for possible future consideration under criterion 6:

Species with peak counts in spring/autumn:

- Ringed plover *Charadrius hiaticula*

Species with peak counts in winter:

- Eurasian wigeon *Anas penelope*
- Northern pintail *Anas acuta*
- Northern shoveler *Anas clypeata*
- Black-tailed godwit *Limosa limosa islandica*

## Threats / Pressures to Site Integrity

- coastal squeeze
- public access/ disturbance
- invasive species
- changes in species distribution
- fisheries: commercial marine and estuarine
- vehicles: illicit
- air pollution: risk of atmospheric nitrogen deposition
- hydrological sensitivity to balance of freshwater and saline inputs

## A.30 Thursley and Ockley Bog Ramsar site

### Qualifying Features

6.105 The site is designated a Ramsar site under the following criterion:

- Criterion 2: The site supports a community of rare wetland invertebrate species including notable numbers of breeding dragonflies.
- Criterion 3: It is one of the few sites in Britain to support all six native reptile species. The site also supports nationally important breeding populations of European nightjar *Caprimulgus europaeus* and woodlark *Lullula arborea*.

### Threats / Pressures to Site Integrity

- appropriate management
- managed recreational pressure
- minimal air pollution
- absence or control of urbanisation effects, such as fires and introduction of invasive non-native species
- maintenance of appropriate water levels
- maintenance of water quality



- management of disturbance during breeding season (March to July) (SPA and Ramsar sites)

# References

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- <sup>1</sup> <https://www.gov.uk/guidance/national-planning-policy-framework>
- <sup>2</sup> <https://www.gov.uk/guidance/habitats-regulations-assessments-protecting-a-european-site>
- <sup>3</sup> The Precautionary Principle, which is referenced in Article 191 of the Treaty on the Functioning of the European Union, has been defined by the United Nations Educational, Scientific and Cultural Organisation (UNESCO, 2005) as: *“When human activities may lead to morally unacceptable harm [to the environment] that is scientifically plausible but uncertain, actions shall be taken to avoid or diminish that harm. The judgement of plausibility should be grounded in scientific analysis”*.
- <sup>4</sup> SNH (2015). Habitats Regulations Assessment of Plans: Guidance for Plan-Making Bodies in Scotland. Version 3.0, January 2015. Available from: <https://www.nature.scot/habitats-regulations-appraisal-plans-guidance-plan-making-bodies-scotland-jan-2015>.
- <sup>5</sup> <https://www.dtapublications.co.uk/>
- <sup>6</sup> Opinion of Advocate General Kokott, 9th June 2005, Case C-6/04. Commission of the European Communities v United Kingdom of Great Britain and Northern Ireland, paragraph 49.  
<http://curia.europa.eu/juris/document/document.jsf?docid=58359&doclang=EN>
- <sup>7</sup> [https://ec.europa.eu/environment/nature/natura2000/management/docs/art6/EN\\_art\\_6\\_guide\\_jun\\_2019.pdf](https://ec.europa.eu/environment/nature/natura2000/management/docs/art6/EN_art_6_guide_jun_2019.pdf)
- <sup>8</sup> Waddenzee case (Case C-127/02, [2004] ECR-I 7405)
- <sup>9</sup> Department for Environment, Food and Rural Affairs. August 2012. Habitats Directive: Guidance on the application of article 6(4). Alternative solutions, imperative reasons of overriding public interest (IROPI) and compensatory measures. 9pp. Available at: [www.defra.gov.uk](http://www.defra.gov.uk) [Accessed on the 03/11/2020].
- <sup>10</sup> <https://www.gov.uk/flood-and-coastal-erosion-risk-management-research-reports/what-is-coastal-squeeze>
- <sup>11</sup> Cutts N & Allan J. 1999. Avifaunal Disturbance Assessment. Flood Defence Works: Saltend. Report to Environment Agency).
- <sup>12</sup> Cutts, N., Phelps, A. and Burdon, D. 2009. Construction and waterfowl: Defining Sensitivity, Response, Impacts and Guidance. Report to Humber INCA, Institute of Estuarine and Coastal Studies, University of Hull.
- <sup>13</sup> The University’s research is available at the following link: <http://bailey.persona-pi.com/Public-Inquiries/M4%20-%20Revised/11.3.67.pdf>.
- <sup>14</sup> Research undertaken by the Institute of Estuarine & Coastal Studies, University of Hull. 2013. Available at: <http://bailey.persona-pi.com/Public-Inquiries/M4%20-%20Revised/11.3.67.pdf> [Accessed on the 01/12/2020]
- <sup>15</sup> Ibid. Response distances to visual stimuli are given in the Estuarine & Coastal Studies report.
- <sup>16</sup> Weilgart L. (2018). The impact of ocean noise pollution on fish and invertebrates. Oceancare & Dalhousie University. 36pp.

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- <sup>17</sup> Magnhagen C., Johansson K. & Sigraý P. (2017). Effects of motorboat noise on foraging behaviour in Eurasian perch and roach: A field experiment. *Marine Ecology Progress Series* **564**: 115-125.
- <sup>18</sup> McCauley R., Fewtrell J. & Popper A.N. (2003). High intensity anthropogenic sound damages fish ears. *Journal of the Acoustic Society America* **113**: 638-642.
- <sup>19</sup> Wysocki L.E., Dittami J.P. & Ladich F. (2006). Ship noise and cortisol secretion in European freshwater fishes. *Biological Conservation* **128**: 501-508.
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- <sup>22</sup> Southall B. L., Bowles A. E., Ellison W. T., Finneran J. J., Gentry R. J., Greene Jr C. R., Kastak D., Ketten D.R., Miller J.H., Nachtigall P.E., Richardson J.W., Thomas J.A, and Tyack P.L. (2007). Marine mammal noise exposure criteria: Initial scientific recommendations. *Aquatic Mammals* **33**: 411–522.
- <sup>23</sup> The Holohan ruling also requires all the interest features of the European sites discussed to be catalogued (i.e., listed) in the HRA. That is the purpose of Appendix A.
- <sup>24</sup> Available at: <https://designatedsites.naturalengland.org.uk/>. [Accessed May and June 2022]
- <sup>25</sup> Available at: [Home | Ramsar Sites Information Service](#) [Accessed August 2022]