



# Basildon Borough Local Plan

## HRA Report

### Habitats Regulations Assessment

## Basildon Borough Council

#### Final report

Prepared by LUC

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# Chapter 1

## Introduction

**1.1** Basildon Borough Council (the Council) commissioned LUC in April 2013 to carry out a Habitat Regulations Assessment (HRA) of the Basildon Core Strategy and associated Development Planning Documents. In late 2014 the decision was made to consolidate all plan-making work into a single new Local Plan to manage growth and development up to 2034. Consequently, all the HRA work undertaken for the Core Strategy was used to inform the preparation of the HRA of the Basildon Borough Draft Local Plan published for consultation in 2016.

**1.2** A publication version of the Local Plan was then prepared and published as the Revised Publication Local Plan alongside an updated HRA Report in November 2018. Two HRA addenda subsequently produced in 2019 as a response to *Holohan v An Bord Pleanala* (November 2018) judgement and in 2020 to account for changes in the baseline, specifically in relation to air quality and offsite habitat loss.

**1.3** This HRA Report accompanies an updated version of the Local Plan, known as the Post Submission Modifications version of the Basildon Borough Local Plan (hereafter referred to as the “2022 Local Plan”). This HRA Report assesses the changes in policy since the consultation on the Revised Publication Local Plan in November 2018 and includes the contents of the two HRA Addenda produced in 2019 and 2020. This HRA Report should be read alongside the 2022 Local Plan.

**1.4** It should be noted that this report is in an ‘Accessible format’, which means it has been formatted to meet the requirements of the Public Sector Bodies (Websites and Mobile Applications) Accessibility Regulations (2018), as set out in the Web Content Accessibility Guidelines (WCAG 2.1). This means it has to have larger font, larger spacing between lines and headings, less information

presented in tables, 'alt text' provided for all figures and it is able to be read by screen-reading software.

## The Requirement to Undertake Habitats Regulations Assessment of Development Plans

**1.5** The requirement to undertake HRA of development plans was confirmed by the amendments to the Habitats Regulations published for England and Wales in 2007 [See reference 1]; the currently applicable version is the Habitats Regulations 2017 [See reference 2], as amended. When preparing the GCLP, the Councils are therefore required by law to carry out an HRA. The Councils can commission consultants to undertake HRA work on its behalf and this (the work documented in this report) is then reported to and considered by the Councils as the 'competent authority'. The Councils will consider this work and would usually [See reference 3] only progress a plan if it considers that the plan will not adversely affect the integrity [See reference 4] of any 'European site', as defined below. The requirement for authorities to comply with the Habitats Regulations when preparing a plan is also noted in the Government's online Planning Practice Guidance [See reference 5] (PPG).

**1.6** HRA refers to the assessment of the potential effects of a development plan on one or more sites afforded the highest level of protection in the UK: Special Protection Areas (SPAs) and Special Areas of Conservation (SACs). These were classified under European Union (EU) legislation but, since 1<sup>st</sup> January 2021, are protected in the UK by the Habitats Regulations 20172 (as amended). Although the EU Directives from which the UK's Habitats Regulations originally derived are no longer binding, the Regulations still make reference to the lists of habitats and species that the sites were designated for, which are listed in annexes to the EU Directives:

- SACs are designated for particular habitat types (specified in Annex 1 of the EU Habitats Directive [See reference 6]) and species (Annex II).



- SPAs are classified for rare and vulnerable birds (Annex I of the EU Birds Directive [See reference 7]), and for regularly occurring migratory species not listed in Annex I.

**1.7** The term 'European sites' was previously commonly used in HRA to refer to 'Natura 2000' sites [See reference 8] and Ramsar sites (international designated under the Ramsar Convention). However, a Government Policy Paper [See reference 9] on changes to the Habitats Regulations 2017 post-Brexit states that:

- Any references to Natura 2000 in the 2017 Regulations and in guidance now refers to the new 'national site network'.
- The national site network includes existing SACs and SPAs; and new SACs and SPAs designated under these Regulations.
- Designated Wetlands of International Importance (known as Ramsar sites) do not form part of the national site network. Many Ramsar sites overlap with SACs and SPAs and may be designated for the same or different species and habitats.

**1.8** Although Ramsar sites do not form part of the new national site network, the Government Policy Paper [See reference 10] confirms that all Ramsar sites remain protected in the same way as SACs and SPAs. In LUC's view and unless the Government provides any guidance to the contrary, potential effects on Ramsar sites should continue to form part of the HRA of plans and projects since the requirement for HRA of plans and projects that might adversely affect Ramsar sites forms an essential part of the protection confirmed by the Government Policy Paper. Furthermore, the NPPF [See reference 11] and practice guidance [See reference 12] currently still state that competent authorities responsible for carrying out HRA should treat Ramsar sites in the same way as SACs and SPAs.

**1.9** The requirement for HRA does not apply to other nationally designated wildlife sites such as Sites of Special Scientific Interest or National Nature Reserves; therefore, for clarity, this report uses the term 'European sites' rather than 'national site network'.

**1.10** The overall purpose of the HRA is to conclude whether or not a proposal or policy, or whole development plan would adversely affect the integrity of the European site in question. This is judged in terms of the implications of the plan for a site's 'qualifying features' (i.e. those Annex I habitats, Annex II species, and Annex I bird populations for which it has been designated). Significantly, HRA is based on the precautionary principle. Where uncertainty or doubt remains, an adverse effect should be assumed.

## Stages of the Habitats Regulations Assessment

**1.11** The section below summarises the stages involved in carrying out an HRA, based on various guidance documents [See reference 13], [See reference 14]. This HRA presents the methodology and findings of Stage 1: Screening and Stage 2: Appropriate Assessment.

### Stage 1: Screening (the 'Significance Test')

#### Task

- Description of the development plan and confirmation that it is not directly connected with or necessary to the management of European sites.
- Identification of potentially affected European sites and their conservation objectives [See reference 15].
- Review of other plans and projects.
- Assessment of likely significant effects of the development plan alone or in combination with other plans and projects, prior to consideration of avoidance or reduction ('mitigation') measures [See reference 16].

## Outcome

- Where effects are unlikely, prepare a 'finding of no significant effect report'.
- Where effects judged likely, or lack of information to prove otherwise, proceed to Stage 2.

## Stage 2: Appropriate Assessment (the 'Integrity Test')

### Task

- Information gathering (development plan and data on European sites [[See reference 17](#)]).
- Impact prediction.
- Evaluation of development plan impacts in view of conservation objectives of European sites.
- Where impacts are considered to directly or indirectly affect qualifying features of European sites, identify how these effects will be avoided or reduced ('mitigation').

## Outcome

- Appropriate Assessment report describing the plan, European site baseline conditions, the adverse effects of the plan on the European site, how these effects will be avoided through, firstly, avoidance, and secondly, mitigation including the mechanisms and timescale for these mitigation measures.
- If effects remain after all alternatives and mitigation measures have been considered proceed to Stage 3.

## Stage 3: Assessment Where No Alternatives Exist and Adverse Impacts Remain Taking into Account Mitigation

### Task

- Identify and demonstrate 'imperative reasons of overriding public interest' (IROPI).
- Demonstrate no alternatives exist.
- Identify potential compensatory measures.

### Outcome

- This stage should be avoided if at all possible. The test of IROPI and the requirements for compensation are extremely onerous.

**1.12** In assessing the effects of the Plan in accordance with Regulation 105 of the Habitats Regulations (as amended), there are potentially two tests to be applied by the competent authority: a 'Significance Test', followed, if necessary, by an Appropriate Assessment which will inform the 'Integrity Test'. The relevant sequence of questions is as follows:

- Step 1: Under Reg. 105(1)(b), consider whether the plan is directly connected with or necessary to the management of the sites. If not:
- Step 2: Under Reg. 105(1)(a) consider whether the plan is likely to have a significant effect on the site, either alone or in combination with other plans or projects (the 'Significance Test'). [These two steps are undertaken as part of Stage 1: Screening shown above.] If so:
- Step 3: Under Reg. 105(1), make an Appropriate Assessment of the implications for the site in view of its current conservation objectives (the 'Integrity Test'). In so doing, it is mandatory under Reg. 105(2) to consult Natural England, and optional under Reg. 105(3) to take the opinion of the

general public. [This step is undertaken during Stage 2: Appropriate Assessment shown above.]

- Step 4: In accordance with Reg.105(4), but subject to Reg.107, give effect to the land use plan only after having ascertained that the plan will not adversely affect the integrity of the European site.

**1.13** It is normally anticipated that an emphasis on Stages 1 and 2 of this process will, through a series of iterations, help ensure that potential adverse effects are identified and eliminated through the avoidance of likely significant effects at Stage 1, and through Appropriate Assessment at Stage 2 by the inclusion of mitigation measures designed to avoid or reduce effects. The need to consider alternatives could imply more onerous changes to a plan document. It is generally understood that so called ‘imperative reasons of overriding public interest’ (IROPI) are likely to be justified only very occasionally and would involve engagement with the Government.

**1.14** The HRA should be undertaken by the ‘competent authority’, in this case Basildon Borough Council, and LUC has been commissioned to do this on their behalf. The HRA also requires close working with Natural England as the statutory nature conservation body in order to obtain the necessary information and agree the process, outcomes and any mitigation proposals.

## Case Law Changes

**1.15** This HRA has been prepared in accordance with relevant case law findings, including most notably the ‘People over Wind’ and ‘Holohan’ rulings from the Court of Justice for the European Union (CJEU).

**1.16** The People over Wind, Peter Sweetman v Coillte Teoranta (April 2018) judgment ruled that Article 6(3) of the Habitats Directive should be interpreted as meaning that mitigation measures should be assessed as part of an Appropriate Assessment and should not be taken into account at the screening stage. The precise wording of the ruling is as follows:

“Article 6(3) .....must be interpreted as meaning that, in order to determine whether it is necessary to carry out, subsequently, an appropriate assessment of the implications, for a site concerned, of a plan or project, it is not appropriate, at the screening stage, to take account of measures intended to avoid or reduce the harmful effects of the plan or project on that site.”

**1.17** In light of the above, the HRA screening stage does not rely upon avoidance or mitigation measures to draw conclusions as to whether the Local Plan could result in likely significant effects on European sites. Instead, any such measures are considered at the Appropriate Assessment stage as relevant.

**1.18** The approach to this HRA is also consistent with the *Holohan v An Bord Pleanala* (November 2018) CJEU judgement which stated that:

Article 6(3) of Council Directive 92/43/EEC of 21<sup>st</sup> May 1992 on the conservation of natural habitats and of wild fauna and flora must be interpreted as meaning that an ‘appropriate assessment’ must, on the one hand, catalogue the entirety of habitat types and species for which a site is protected, and, on the other, identify and examine both the implications of the proposed project for the species present on that site, and for which that site has not been listed, and the implications for habitat types and species to be found outside the boundaries of that site, provided that those implications are liable to affect the conservation objectives of the site.

Article 6(3) of Directive 92/43 must be interpreted as meaning that the competent authority is permitted to grant to a plan or project consent which leaves the developer free to determine subsequently certain parameters relating to the construction phase, such as the location of the construction compound and haul routes, only if that authority is certain that the

development consent granted establishes conditions that are strict enough to guarantee that those parameters will not adversely affect the integrity of the site.

Article 6(3) of Directive 92/43 must be interpreted as meaning that, where the competent authority rejects the findings in a scientific expert opinion recommending that additional information be obtained, the 'appropriate assessment' must include an explicit and detailed statement of reasons capable of dispelling all reasonable scientific doubt concerning the effects of the work envisaged on the site concerned.

**1.19** In undertaking this HRA, LUC consider the potential for effects on species and habitats, including those not listed as qualifying features, to result in secondary effects upon the qualifying features of European sites, including the potential for complex interactions and dependencies. In addition, the potential for offsite impacts, such as through impacts to functionally linked land, and/or species and habitats located beyond the boundaries of European site that may be important in supporting the ecological processes of the qualifying features, has also been fully considered in this HRA.

**1.20** The approach to the HRA also takes into consideration the 'Wealden' judgement and the 'Dutch Nitrogen Case' judgements from the Court of Justice for the European Union.

**1.21** Wealden District Council v Secretary of State for Communities and Local Government, Lewes District Council and South Downs National Park Authority (2017) ruled that it was not appropriate to scope out the need for a detailed assessment for an individual plan or project based on the annual average daily traffic (AADT) figures detailed in the Design Manual for Roads and Bridges or the critical loads used by Defra or Environmental Agency without considering the in-combination impacts with other plans and projects.

**1.22** In light of this judgement, the HRA therefore considers traffic growth based on the effects of development from the Local Plan in combination with other drivers of growth such as development proposed in neighbouring districts and demographic change.

**1.23** The 2018 ‘Coöperatie Mobilisation for the Environment and Vereniging Leefmilieu (Dutch Nitrogen)’ judgement stated that:

“...the positive effects of the autonomous decrease in the nitrogen deposition...be taken into account in the appropriate assessment..., it is important that the autonomous decrease in the nitrogen deposition be monitored and, if it transpires that the decrease is less favourable than had been assumed in the appropriate assessment, that adjustments, if required, be made.”

**1.24** The Dutch Nitrogen judgement also states that according to previous case law:

“...it is only when it is sufficiently certain that a measure will make an effective contribution to avoiding harm to the integrity of the site concerned, by guaranteeing beyond all reasonable doubt that the plan or project at issue will not adversely affect the integrity of that site, that such a measure may be taken into consideration in the ‘appropriate assessment’ within the meaning of Article 6(3) of the Habitats Directive.”

**1.25** The HRA of the Basildon Borough Local Plan therefore only considers the existence of conservation and/or preventative measures if the expected benefits of those measures are certain at the time of the assessment.



## Structure of this Report

**1.26** This chapter (Chapter 1) has described the background to the production of the Basildon Borough Local Plan and the requirement to undertake HRA. The remainder of the report is structured into the following sections:

- Chapter 2: The Local Plan summarises the content of the 2022 Local Plan which is the subject of this HRA report.
- Chapter 3: HRA Screening methodology sets out the approach taken and the tasks carried out during the Screening stage of the HRA.
- Chapter 4: HRA Screening assessment summarises the findings of the HRA Screening and concludes as to whether significant effects on European sites are likely to result from the implementation of the 2022 Local Plan and, if so, will require further assessment at the Appropriate Assessment stage.
- Chapter 5: Appropriate Assessment concludes whether aspects of the 2022 Local Plan, for which likely significant effects could not be ruled out, will adversely affect the integrity of European sites, or whether mitigation and avoidance measures can be built into the 2022 Local Plan which would ensure no such effect.
- Chapter 6: Conclusion summarises the conclusion of the HRA and mitigation measures required to ensure no adverse effect on integrity.

## Chapter 2

# The Local Plan

**2.1** The Basildon Borough Local Plan is being prepared in accordance with the approved Local Development Scheme (2021-2023) [\[See reference 18\]](#).

**2.2** The Local Plan is a Borough wide plan to coordinate the development and growth requirements of the Borough for the period 2014 to 2034. Chapters 1 to 4 of the Local Plan include an introduction, the policy context including Government policy, a spatial portrait of the Borough, and a description of the drivers for change that the Council has taken into account when preparing the Local Plan.

**2.3** The vision and objectives for future development and change within Basildon Borough are set out in Chapter 5 of the Local Plan, and these are followed by a series of chapters that contain the planning policies that set out the approach to growth, distribution and management of development across the Borough in order to achieve a sustainable development:

- Chapter 6: Achieving Sustainable Development.
- Chapter 7: Building a Strong, Competitive Economy.
- Chapter 8: Ensuring the Vitality of Town Centres.
- Chapter 9: Promoting Sustainable Transport.
- Chapter 10: Supporting High Quality Communications Infrastructure.
- Chapter 11: Delivering a Wide Choice of High Quality Homes.
- Chapter 12: Requiring Good Design.
- Chapter 13: Promoting Healthy Communities.
- Chapter 14: Protecting Green Belt Land.
- Chapter 15: Meeting the Challenge of Climate Change and Flooding.

## **Chapter 2**     The Local Plan

- Chapter 16: Conserving and Enhancing the Natural Environment.
- Chapter 17: Conserving and Enhancing the Historic Environment.

**2.4** The implementation, monitoring and review arrangements for the Local Plan are contained in Chapter 18.

**2.5** The implementation, monitoring and review arrangements for the Local Plan are contained in Chapter 18.

**2.6** The Local Plan includes the following types of policies:

- **Strategic Policies:** These set out the framework for joint working, managing development and supporting service provision, provide a borough-wide approach for guiding development to designated parts of the Borough, along with mechanisms for delivering infrastructure and protecting and enhancing the built and natural environment.
- **Allocation Policies:** These identify specific locations where development and change will occur. Criteria developed for each allocation set out the types of development which may occur, along with any mitigation and infrastructure provision necessary to support the development.
- **Development Management Policies:** These are intended to be applied throughout the development management process, setting out how the development will be managed to ensure it contributes towards the vision and objectives.

**2.7** Supplementary Planning Documents and Neighbourhood Plans may also be prepared to further support the policies within the Local Plan.

**2.8** The Basildon Borough Local Plan allocates land to provide 20,190 homes, therefore meeting the minimum housing need for the Borough over the 20 year plan period. Policy SD2 identifies two broad locations for potential housing growth which will be considered in the next review of the Local Plan once sustainable development proposals have been identified that incorporate, and are supported by, the necessary infrastructure provision emerging through the

forthcoming South Essex Plan. Policy SD3 allocates minimum housing targets for two neighbourhood plan areas within the Borough: 1,350 within the Bowers Gifford and North Benfleet Neighbourhood Plan Area and 39 homes within the Ramsden Bellhouse Neighbourhood Plan Area. The 2022 Local Plan provides for a net increase of 20,000 jobs over the plan period, which equates to 80ha of employment land, meeting the Borough's employment needs and accommodating a portion of London's unmet employment needs. The 2022 Local Plan allocates a series of sites for development to meet the identified housing and economic needs, focused primarily on Basildon, but also with some sites allocated at Billericay and Wickford.

**2.9** The Draft Local Plan underwent public consultation (known as Regulation 18 consultation) in January 2016. A publication version of the Local Plan, called the Revised Publication Local Plan was consulted upon (known as Regulation 19 consultation) in November 2018 and was subsequently submitted for examination (known as Regulation 22) in March 2019. Since the Local Plan was submitted the Council has updated several pieces of evidence and through communication with the Inspector has been instructed to undertake a technical consultation on the new evidence and the proposed modifications to the Local Plan that have arisen from the new evidence.

**2.10** The Local Plan has been accompanied by an HRA Report and Sustainability Appraisal (SA) at each stage of this process.

**2.11** The latest iteration of the Local Plan which includes the post submission modifications, (the "2022 Local Plan"), and this HRA Report will be made available for public consultation in early 2022.

## Chapter 3

# HRA Methodology

**3.1** The HRA of the 2022 Local Plan consists of two stages:

- Screening Assessment.
- Appropriate Assessment.

**3.2** The methodology undertaken for the HRA is set out in more detail below.

## Screening Assessment

**3.3** HRA Screening of the 2022 Local Plan has been undertaken in line with current guidance and seeks to meet the requirements of the Habitats Regulations. The tasks that were undertaken during the screening stage of the HRA and the conclusions reached are described in detail below. This section of the HRA report sets out policies and impact types for which likely significant effects are predicted or cannot be ruled out prior to mitigation and avoidance measures.

**3.4** The purpose of the screening stage is to:

- Identify all aspects of the plan which would have no effect on a European site, so that they can be eliminated from further consideration in respect of this and other plans.
- Identify all aspects of the plan which would not be likely to have a significant effect on a European site (i.e. would have some effect, because of links/connectivity, but which are not significant), either alone or in combination with other aspects of the same plan or other plans or projects, which therefore do not require 'Appropriate Assessment'.

- Identify those aspects of the plan where it is not possible to rule out the risk of significant effects on a European site, either alone or in combination with other plans or projects. This provides a clear scope for the parts of the plan that will require Appropriate Assessment.

## Identification of European Sites and Factors Contributing to their Integrity

**3.5** During the HRA of the now-withdrawn Core Strategy, an initial investigation was undertaken to identify the European sites within or adjacent to the Basildon Borough boundary which may be affected by development. This involved the use of GIS data to map the locations and boundaries of European sites using publicly available data from Natural England.

**3.6** All European sites lying partially or wholly within 15km from the Borough boundary were included in the HRA of the Core Strategy to reflect the fact that development resulting from a plan may affect European sites which are located outside the administrative boundary of the plan area. This distance has generally been considered reasonable by Natural England in other Local Plan HRAs to ensure that all designated sites that could potentially be affected by development are identified and included in the assessment. A number of additional European sites beyond the 15km buffer for which a pathway for potential effects exists were also identified. The same approach has been adopted in identifying the European sites that may be affected by the 2022 Local Plan.

**3.7** European sites within 15km of the Basildon Borough boundary are as follows:

- Benfleet and Southend Marshes SPA and Ramsar site.
- Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar site.
- Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA and Ramsar site.

- Essex Estuaries SAC.
- Medway Estuary and Marshes SPA and Ramsar site.
- Thames Estuary and Marshes SPA and Ramsar site.

**3.8** Three additional European sites beyond the 15km buffer were also considered in relation to the potential for water abstraction to serve the development proposed by the 2022 Local Plan to adversely affect water availability and flow regimes. This was on the basis that the South Essex Water Cycle Study indicates that the water available to all three of these sites could be affected by abstraction to supply the Essex Resource Zone of which Basildon Borough is part:

- Abberton Reservoir SPA and Ramsar site.
- Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar site.
- Stour and Orwell Estuaries SPA and Ramsar site.

**3.9** All of the European sites above are shown in Figure 3.1. Other types of significant effect on other European sites lying more than 15km from the Borough boundary are not considered likely because of the distances between the Plan's proposals and the European sites and/or the absence of pathways along which such effects could occur. These other European sites are not shown in Figure 3.1. Descriptions of the scoped-in European sites listed above, their designated features and factors affecting their integrity are provided in Appendix A.

**3.10** Detailed information about each European site is provided in Appendix B, described with reference to Standard Data Forms for the SPAs and SACs, and Natural England's Site Improvement Plans [See reference 19]. Natural England's conservation objectives [See reference 20] for the SPAs and SACs have also been reviewed. These state that site integrity must be maintained or restored by maintaining or restoring the habitats of qualifying features, the supporting processes on which they rely, and populations of qualifying species.

# Assessment of ‘Likely Significant Effects’ of the Local Plan

**3.11** As required under Regulation 105 of the Conservation of Habitats and Species Regulations 2017 (as amended) [See reference 21], an assessment has been undertaken of the ‘likely significant effects’ of the 2022 Local Plan. The HRA Screening assessment began by considering the potential for the development proposed by each 2022 Local Plan policy to have a likely significant effect, either alone or in-combination with the other plans and projects that are reviewed in Appendix B. The findings of the initial Screening are summarised in Chapter 4 and the Screening matrix can be found in Appendix C. The screening assessment has been conducted without taking mitigation into account, in accordance with the ‘People over Wind’ judgment.

**3.12** A ‘traffic light’ system has been used to record the potential for policies and site allocations to have likely significant effects on European sites using the colour categories shown below.

**Table 3.1: Colour coding of the likely significant effects of the policies and site allocations on European Sites**

<b>Colour coding and description</b>
Significant effects likely
Significant effects uncertain
Significant effects not likely

**3.13** This initial Screening does not represent the findings of the HRA Screening assessment as it only considers the potential for the development proposed by the policy in question to have likely significant effects. The conclusions of the HRA Screening are described in Chapter 4.



**3.14** A risk-based approach involving the application of the precautionary principle was adopted in the assessment, such that a conclusion of ‘no significant effect’ was only reached where it was considered very unlikely, based on current knowledge and the information available, that a proposal in the 2022 Local Plan would have a significant effect on the integrity of a European site.

## Interpretation of ‘Likely Significant Effects’

**3.15** Relevant case law helps to interpret when effects should be considered as a likely significant effect, when carrying out HRA of a land use plan.

**3.16** In the Waddenzee case [See reference 22], the European Court of Justice ruled on the interpretation of Article 6(3) of the Habitats Directive (translated into Reg. 102 in the Habitats Regulations), including that:

An effect should be considered ‘likely’, “if it cannot be excluded, on the basis of objective information, that it will have a significant effect on the site” (para 44). An effect should be considered ‘significant’, “if it undermines the conservation objectives” (para 48). Where a plan or project has an effect on a site “but is not likely to undermine its conservation objectives, it cannot be considered likely to have a significant effect on the site concerned” (para 47).

**3.17** A relevant opinion delivered to the Court of Justice of the European Union commented that:

“The requirement that an effect in question be ‘significant’ exists in order to lay down a de minimis threshold. Plans or projects that have no appreciable effect on the site are thereby excluded. If all plans or projects capable of

having any effect whatsoever on the site were to be caught by Article 6(3), activities on or near the site would risk being impossible by reason of legislative overkill.”

**3.18** This opinion (the ‘Sweetman’ case) therefore allows for the authorisation of plans and projects whose possible effects, alone or in combination, can be considered ‘trivial’ or de minimis; referring to such cases as those “that have no appreciable effect on the site”. In practice such effects could be screened out as having no likely significant effect – they would be ‘insignificant’.

**3.19** The HRA screening assessment therefore considers whether the 2022 Local Plan policies could have likely significant effects either alone or in combination.

## Screening Assumptions and Information Used in Reaching Conclusions About Likely Significant Effects

**3.20** The Screening stage of the HRA took the approach of screening each 2022 Local Plan policy individually, which is consistent with current guidance.

**3.21** There are no European sites within the Plan area, the closest being Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA and Ramsar site which is 1.4km from the Borough boundary at its closest point; Basildon town which is the Plan’s main focus for development is approximately 4.8km from the nearest European site. Based on this, an initial examination of the designated features of the scoped-in European sites, and the general nature of the Plan proposals, it was considered that no potential existed for most types of likely significant effect on European sites from the 2022 Local Plan proposals, including air pollution, direct physical loss or damage, disturbance, and non-toxic contamination. The following types of potential effects were judged as

having the potential to result in likely significant effects on the European sites beyond the Borough boundary:

- Increased air pollution.
- Increased recreation pressure.
- Reduced water quality.
- Reduced water resources.
- Increased flood risk.
- Loss of offsite functionally linked land.

**3.22** The approach taken in the HRA for screening policies for their potential to have each of these types of effect is outlined below. For some types of potential likely significant effect, the Screening assessment was carried out on a proximity basis, using GIS data to determine the distance between potential development locations and the European sites that are the subject of the assessment. In the absence of accepted standards or locally specific evidence in relation to the distances over which significant effects are likely, the assumptions described below were applied.

### Increased Air Pollution

**3.23** In July 2017, the Department for the Environment, Food and Rural Affairs (Defra) issued Basildon Borough Council (BBC) and Rochford District Council with a Direction in respect of the Air Quality Framework Directive [See reference 23]. The Direction required the preparation of an Air Quality Management Plan (AQMP) to address three recorded exceedances in NO<sub>2</sub> levels on the A127 [See reference 24] identified by the Pollution Climate Mapping (PCM) model. The PCM model predicted three locations along the A127 route in Basildon and Rochford likely to continue to exceed the NO<sub>2</sub> annual mean EU Limit Value of 40 µg/m<sup>3</sup> beyond 2020.

**Table 3.2: PMC NO<sub>2</sub> exceedances along A127**

Location	Authority	2018 NO <sub>2</sub>	2020 NO <sub>2</sub>
Fortune of War Junction	Basildon Borough	50	45
Noak Bridge Junction	Basildon Borough	51	46
Rayleigh Weir Junction	Basildon Borough	49	45

**3.24** Whilst the data provided by this model gives an overview of the scale of the air quality issue along the route, the model is at a national level so there is potential for discrepancies between the modelled results and the extent of the actual problem on the ground. Therefore, Essex County Council (ECC) in conjunction with Ringway Jacobs undertook some more detailed modelling in 2018 and 2019 to confirm the scale and location of the exceedances. The local modelling identified no exceedance at the Fortune of War Junction and Rayleigh Weir Junction but identified two points of exceedance at the Noak Bridge Junction and an additional point of exceedance at A127/A132 Nevendon Interchange.

**Table 3.3: Essex County Council Model NO<sub>2</sub> exceedances along A127**

Location	Authority	2018 NO <sub>2</sub>	2020 NO <sub>2</sub>
Noak Bridge Junction – A176, Upper Mayne Road	Basildon Borough	49.2	43.8
Noak Bridge Junction – A127	Basildon Borough	46.5	42.6
Nevendon Interchange	Basildon Borough	49.9	46.7

**3.25** The ECC model was used to calculate the total daily reduction in vehicles required to meet the required NO<sub>2</sub> limit value by 2020: 22,484. This figure was used as the basis for identifying appropriate measures to reduce traffic flows on the A127 through the AQMP.

**3.26** A business case for the implementation of a preferred AQMP was submitted to Defra in May 2019 [See reference 25]. The business case explored three main mitigation packages:

1. Speed limit reduction scheme: A 50mph speed limit along the A127 from the Fortune of War Junction to Pound Lane Junction. Businesses within the zone would be offered advice and support on upgrading to cleaner vehicles and installing electric charging points and cycle parking. They would be encouraged to cycle, walk and use public transport more in their daily commutes.
2. A non-charging Clean Air Zone (CAZ): A defined area where targeted action is taken to improve air quality, including funding local businesses within the zone to upgrade their fleet of vehicles using cleaner technologies.
3. A charging CAZ: A charging CAZ discouraging specific types of vehicle from travelling along the A127. A charging CAZ would displace traffic onto other routes and create new non-compliances in those areas. Any traffic displacement away from the business areas would be into residential areas. This could increase both the air quality non-compliances and the road traffic collision rates.

**3.27** The preferred AQMP to address NO<sub>2</sub> exceedances included the speed limit reduction scheme on the A127 in combination with a non-charging CAZ. In June 2019, Defra issued a new direction to BBC to implement the speed limit reduction scheme on the A127 as soon as possible, but to undertake further air quality and transport modelling to demonstrate what measures would need to be implemented by the authorities to deliver compliance quicker than 2023 at the exceedance locations including consideration of a small charging CAZ and/or access restriction (charge or ban) for HGVs [See reference 26].

**3.28** An updated business case for the speed reduction scheme [See reference 27] on the A127 was submitted to Defra by ECC in October 2019 but Defra has yet to respond. The speed reduction scheme was rolled out in March 2020. However, at this point in time (March 2020) it is unknown whether the suite of additional measures required to deliver compliance will include the non-charging measures modelled in the original business case prepared by ECC, a small charging CAZ, access restrictions or a combination of these additional schemes.

**3.29** In relation to the HRA, air pollution is most likely to affect European sites where plant, soil and water habitats are the qualifying features, but some qualifying animal species may also be affected, either directly or indirectly, by deterioration in habitat as a result of air pollution. Deposition of pollutants to the ground and vegetation can alter the characteristics of the soil, affecting the pH and nitrogen levels, which can then affect plant health, productivity and species composition.

**3.30** In terms of vehicle traffic, nitrogen oxides (NO<sub>x</sub>, i.e. NO and NO<sub>2</sub>) are considered to be the key pollutants. Deposition of nitrogen compounds may lead to both soil and freshwater acidification, and NO<sub>x</sub> can cause eutrophication of soils and water.

**3.31** Based on the Highways Agency Design Manual for Road and Bridges (DMRB) Manual Volume 11, Section 3, Part 114 (which was produced to provide advice regarding the design, assessment and operation of trunk roads including motorways), it is assumed that air pollution from roads is unlikely to be significant beyond 200m from the road itself. Where increases in traffic volumes are forecast, this 200m buffer needs to be applied to the relevant roads in order to make a judgement about the likely geographical extent of air pollution impacts.

**3.32** The DMRB Guidance for the assessment of local air quality in relation to highways developments provides criteria that should be applied at the Screening Stage of an assessment of a plan or project, to ascertain whether there are likely to be significant impacts associated with routes or corridors.

Based on the DMRB guidance, affected roads which should be assessed are those where:

- Daily traffic flows will change by 1,000 AADT (Annual Average Daily Traffic) or more; or
- Heavy duty vehicle (HDV) flows will change by 200 AADT or more; or
- Daily average speed will change by 10km/hr or more; or
- Peak hour speed will change by 20km/hr or more; or
- Road alignment will change by 5m or more.

**3.33** Where significant increases in traffic are possible on roads within 200m of European sites, traffic forecast data may be needed to determine if increases in vehicle traffic are likely to be significant. In line with the Wealden judgment, the traffic growth considered by the HRA should be based on the effects of development provided for by the Plan in combination with other drivers of growth such as development proposed in neighbouring districts and demographic change.

**3.34** No European sites lie within 200m of the A127 and therefore it can be concluded that no likely significant effects will occur as a result of the 2022 Local Plan in relation to changes in air quality at A127.

### Increased Recreational Pressures

**3.35** The review of the characteristics of European sites within the scope of the HRA indicated that whilst recreational issues are only identified as a current pressure or threat at some sites, all of them have designated bird interest and associated habitats with the potential to be adversely affected by increased recreational pressure.

**3.36** Potential adverse effects include visual and noise disturbance of bird populations by walkers, especially those with dogs, and by those engaged in marine activities such as angling, jet skiing and kite surfing. Localised damage

to vegetation and soils by frequent pedestrian traffic, mountain bikes and trail bikes could also result in adverse effects, particularly if there are qualifying habitats and have been included as part of the consideration of recreational pressures.

**3.37** The extent to which increases in population can contribute to recreational pressures at European sites is complex, and recent approaches advocated by local authorities and Natural England elsewhere in the UK, including much of the Essex coastline, have recognised that there is no ‘one size fits all’ list of assumptions that can be applied. Studies have shown that different European sites have varying ‘zones of influence’, within which increases in population may result in likely significant effects. The zones of influence are typically established using questionnaire surveys at each of the sites, which seek to determine the origin and distances travelled by the majority of visitors. The zones of influence used in this HRA assessment, which have been based on existing evidence and advice provided by Natural England [\[See reference 28\]](#), are provided in Table 3.2 below.

**Table 3.4: Zones of Influence for recreational impacts**

European Site	Zone of Influence (Zol) applied in this assessment (km)	Site allocations of Local Plan located within Zol
Essex Estuaries SAC*	9.7 / 22 / 20.8 / 4.5 / 13	Yes
Hamford Water SPA and Ramsar	8	No
Stour and Orwell Estuaries SPA and Ramsar	13	No
Colne Estuary SPA and Ramsar	9.7	No
Blackwater Estuary SPA and Ramsar	22	Yes
Dengie SPA and Ramsar	20.8	No



European Site	Zone of Influence (Zol) applied in this assessment (km)	Site allocations of Local Plan located within Zol
Crouch and Roach Estuaries SPA and Ramsar	4.5	Yes
Foulness Estuary SPA and Ramsar	13	No
Benfleet and Southend Marshes SPA and Ramsar	4.3	No
Thames Estuary and Marshes SPA and Ramsar	8.1	Yes
Abberton Reservoir SPA	13	No

\*The Essex Estuaries comprise the Colne Estuary, Blackwater Estuary, Dengie, Crouch and Roach Estuaries and Foulness Estuary and so follow the respective ZOIs throughout.

**3.38** On the basis of the above zones of influence, sites requiring consideration in relation to recreational pressures comprise:

- Essex Estuaries SAC.
- Blackwater Estuary SPA and Ramsar.
- Crouch and Roach Estuaries SPA and Ramsar.
- Thames Estuary Marshes SPA and Ramsar.

**3.39** No likely significant effect was considered in relation to the remaining European sites, which support ZOI that did not lie within the boundaries of the borough.

## Reduced Water Quality

**3.40** The review of the characteristics of European sites within the scope of the HRA (Appendix A) indicated that whilst water quality issues are only identified as a current pressure or threat at some sites, the designated features of all of them have the potential to be adversely affected if water entering the site were to experience significantly increased nutrient inputs or significant changes to the hydrological regime.

**3.41** Development within Basildon Borough may adversely affect the water quality of the European sites beyond its boundary via increased volumes of treated wastewater discharged from the Water Recycling Centres or WRCs (formerly known as Wastewater Treatment Works or WwTWs) serving communities in the Borough or via combined sewer overflows during high rainfall events. These could, in turn, result in nutrient enrichment of water and potential lowering of dissolved oxygen as well as increased water velocities and levels for a distance downstream of the WRC outfall.

**3.42** Other sources of water pollution which may be associated with development, such as contaminated surface run-off, were assumed incapable of significant effects on European sites beyond the Borough boundary.

**3.43** The HRA assumed that the potential for likely significant effects due to reduced water quality, either alone or in-combination, only exists for European sites which are within 15km of the Borough boundary (as identified earlier in this chapter) and which are hydrologically connected to it. Water pollution from more distant development was assumed to be sufficiently diluted and dispersed as to be negligible. The hydrological connectivity of the WRCs serving Basildon Borough is set out in below, based on information contained within the HRA of the Core Strategy Preferred Options and the 2011 Water Cycle Study [See [reference 29](#)]. It was assumed that combined sewer overflows are hydrologically connected to the same European sites.

## WRCs Serving Basildon Borough and their Hydrological Connectivity to European Sites Within 15km of Basildon Borough Boundary

### Basildon WRC (Cortauld Road, North of Basildon)

- Despite being close to the Basildon Brook, a tributary of the River Crouch, this WRC's effluent is pumped southwards in a pipe to discharge to Timberman's Creek in Pitsea (grid reference TQ737874) which is connected to the River Thames approximately 5km upstream of Benfleet and Southend Marshes SPA and Ramsar site and opposite the Thames Estuary and Marshes SPA and Ramsar site.

### Wickford WRC (to North East of Wickford; also serves Chelmsford City Council administrative area)

- Discharges to River Crouch (grid reference TQ76919401) and is therefore hydrologically connected to Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA and Ramsar site and Essex Estuaries SAC.

### Pitsea WRC (near Pitsea Station, South of Basildon)

- Discharges to Timberman's Creek (grid reference TQ736868) which is connected to the River Thames approximately 5km upstream of Benfleet and Southend Marshes SPA and Ramsar site and opposite the Thames Estuary and Marshes SPA and Ramsar site.

### Billericay WRC (East of Billericay)

- Discharges to River Crouch (grid reference TQ69899420) and is therefore hydrologically connected to Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA and Ramsar site and Essex Estuaries SAC.

Shenfield and Hutton WRC (North East of Hutton; currently serves Brentwood Borough but connection to Brentwood Borough has been considered in the past)

- Discharges to the River Wid, (grid reference TQ65109600) and is therefore hydrologically connected to Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar site and Essex Estuaries SAC (included for information only as WRC does not currently serve Basildon).

**3.44** The Council has been engaged in ongoing discussions with Anglian Water Services (AWS), which is responsible for the WRCs and sewerage network within the Borough, to understand the capacity of this wastewater infrastructure to accommodate different scales and distributions of residential development. It is notable, however, that the wastewater infrastructure implications of each proposed site have been assessed by AWS on an individual site basis. AWS explains that the cumulative effect of all of the identified allocated sites may require enhancement to capacity and should all the available capacity be taken up at the WRC then upgrade to the works may be required that may involve seeking consent from the Environment Agency for an increase in discharge of final effluent. The HRA of site allocations made reference to this information, where relevant but as it did not assess the cumulative effect on WRC capacity of all preferred options together, it was of limited use in ruling out the potential for reduced water quality effects from residential development proposals in the 2022 Local Plan.

**3.45** On the basis of the above consideration of hydrological connectivity, sites requiring consideration in relation to water quality comprise:

- Essex Estuaries SAC.
- Crouch and Roach Estuaries SPA and Ramsar.
- Benfleet and Southend Marshes SPA and Ramsar.
- Thames Estuary Marshes SPA and Ramsar.

## Reduced Water Resources

**3.46** The review of the characteristics of European sites within the scope of the HRA (Appendix A) indicates that whilst water resources issues are only identified as a current pressure or threat at some sites, the designated features

of all of them have the potential to be adversely affected by significant changes to the hydrological regime.

**3.47** Initial consideration was also given to the potential for development proposed by the 2022 Local Plan within Basildon Borough to affect water levels and flow regimes at the European sites beyond its boundary via increased abstraction to serve its potable water needs. Previous HRA work for the Core Strategy Preferred Options ruled out the possibility of adverse effects on European sites due to reduced water resources largely on the basis that the expansion of Abberton Reservoir would more than meet water demand for the foreseeable future. The current Water Resources Management Plan (WRMP) covering Basildon Borough [See reference 30] forecasts water demand for the period 1<sup>st</sup> April 2015 to 31<sup>st</sup> March 2040 and documents how the water company plans to meet this demand. The WRMP shows that Basildon Borough lies within the Essex Water Resource Zone (WRZ) and confirms that the enlargement of Abberton Reservoir is now complete, and that the Essex WRZ is forecast to have a significant supply surplus in every year until 2040.

**3.48** On this basis, the potential for the development proposed by 2022 Local Plan to have likely significant effects on European sites hydrologically connected to the Essex WRZ due to reduced water resources was ruled out and individual policies were not screened for this potential effect.

### Increased Flood Risk

**3.49** The review of the characteristics of European sites within the scope of the HRA (Appendix A) indicates that their designated features have the potential to be adversely affected by significant changes to the hydrological regime and/or flood damage to habitats on which designated features depend.

**3.50** New development in areas that perform a flood storage function for rivers is likely to reduce flood storage capacity and thereby increase flood risk downstream. Where there is a European site downstream of the development site, increased flood risk could result in loss of or damage to terrestrial habitats

or changed water levels and flows in aquatic habitats, adversely affecting sensitive designated features. The HRA used areas in Flood Zone 3 (1 in a 100 or greater chance of river flooding each year) as a proxy for flood storage areas and built development within Flood Zone 3 was assumed to have the potential for significant effects, alone or in-combination, due to increased flood risk at downstream European sites. It was assumed that the likelihood of development in lower risk Flood Zones (less than a 1 in 100 chance of river flooding each year) increasing flood risk at downstream European sites was sufficiently low that these would not constitute 'likely significant effects'. It was further assumed that any increase to flood risk from development within any Flood Zone would be negligible at European sites located more than 15km from the Borough boundary.

**3.51** New development could also increase downstream flood risk by creating impermeable surfaces that increase the rate at which surface water drains into nearby watercourses during heavy rainfall. The HRA assumed that all development allocations on greenfield sites give rise to a potential likely significant effect on downstream European sites within 15km of the Borough boundary, in-combination with the other greenfield development proposed by the 2022 Local Plan.

**3.52** On the basis of the above consideration of hydrological connectivity, sites requiring consideration in relation to increased flood risk comprise:

- Essex Estuaries SAC.
- Crouch and Roach Estuaries SPA and Ramsar.
- Benfleet and Southend Marshes SPA and Ramsar.
- Thames Estuary Marshes SPA and Ramsar.

### Loss of Offsite Habitat

**3.53** Any development resulting from the 2022 Local Plan would take place within Basildon Borough; therefore, no direct habitat loss to European sites will occur. Loss of habitat within Basildon Borough may have the potential to result

in likely significant effects to European sites where the habitat affected contributes towards maintaining the interest feature for which the European site is designated.

**3.54** Given the distances between site allocations within the Borough and the European sites, this type of effect is limited to potential effects on populations of SPA and Ramsar birds which may rely upon offsite habitat for foraging and loafing, especially large fields comprising arable and pastoral land uses. Natural England has advised that their recognised foraging distance threshold for the majority of wetland bird species is typically within 2km from the designated site. However, the foraging distance for golden plover and lapwing is recognised as being up to 15km. No European sites within 15km supported these two species and as such a 2km buffer was applied in this assessment. In light of this, all European sites were ruled out from impacts associated with damage/loss of habitat, either because their qualifying features are not susceptible to offsite habitat loss (e.g. Essex Estuaries SAC) or the species for which they are designated would not be expected to rely upon land allocations within the Borough of Basildon.

## Mitigation Provided by the Local Plan

**3.55** Some of the potential likely significant effects of the 2022 Local Plan could be mitigated through the implementation of other proposals in the 2022 Local Plan itself, such as those relating to the provision of recreational open space within new developments (which would help avoid, reduce, and mitigate increased pressure from recreational activities at European sites).

**3.56** However, a recent CJEU ruling (People over Wind, Peter Sweetman v Coillte Teoranta (Case C-323/17) judgement) ruled that Article 6(3) of the Habitats Directive should be interpreted as meaning that mitigation measures, specifically measures which avoid or reduce adverse effects, should be assessed as part of an Appropriate Assessment, and should not be taken into account at the Screening stage. The precise wording of the ruling is as follows:

“Article 6(3) .....must be interpreted as meaning that, in order to determine whether it is necessary to carry out, subsequently, an appropriate assessment of the implications, for a site concerned, of a plan or project, it is not appropriate, at the screening stage, to take account of measures intended to avoid or reduce the harmful effects of the plan or project on that site.”

**3.57** Prior to this judgment, UK case law had established that avoidance or reduction measures that form part of a proposal could be taken into account at the Screening stage, on the basis of objective information. This HRA has taken account of this recent ruling and therefore not relied on avoidance or mitigation measures at the Screening stage. Where such measures are proposed to avoid the harmful effects of the plan, they have been considered at the Appropriate Assessment stage to ensure compliance with recent case law.

**3.58** The extent to which mitigation may be achieved through the 2022 Local Plan was considered during the Appropriate Assessment process and has influenced the Appropriate Assessment conclusions (see Chapter 7).

**3.59** Policies which may serve a mitigatory role for each of the potential impacts identified are described below.

## Recreational Pressures

**3.60** The Green Infrastructure Strategy set out in Policy NE1 seeks, through partnership working, to extend and enhance the network of Green Infrastructure in the Borough, including by providing links for people to the South Essex Green Grid and Nature Improvement Area. Policy NE2 protects existing Country Parks and seeks opportunities to enhance them.

**3.61** Strategic development Policy SD1, the strategic housing Policy H1 and the implementation strategy in Policy IMP1 state that growth will be phased to align



with provision of the infrastructure needed to support it. Many of the individual strategic housing and mixed-use allocation Policies H5-H22 restate this and require landscape buffers to be multi-functional, these functions include open space.

**3.62** New open space could serve a mitigatory role by providing accessible natural greenspace which offers an alternative to visiting European sites for recreational purposes. Such policies include:

- Policy H5: 9.9ha of open space.
- Policy H7: This policy is required to make provision for open space within its area.
- Policy H8: On-site provision in line with Policy HC2 and providing for any loss of open space arising from development at the site allocated in Policy H5.
- Policy H10: On-site open space provision will be secured towards the south-east and east of the site.
- Policy H11: On-site provision in line with Policy HC2 and providing for any loss of open space arising from development at the site allocated in Policy H11.
- Policy H12: A new strategic open space will be located to the south-west of the development site.
- Policy H13: New strategic open space for north Wickford, adding new connections to Public Rights of Way.
- Policy H14: Open space will be delivered to the west of the development area.
- Policy H17: On-site provision in line with Policy HC2 and providing for any loss of open space arising from development and additional spaces associated with the developments landscaping.
- Policy 18: On-site open space provision will be integrated into the landscape of the site.

- Policy H19: A central area of open land should deliver a 16ha multi-functional extension.
- Policy 20: On-site open space provision will be provided for within the development.

**3.63** The Leisure and Recreation Strategy set out in Policy HC2 specifies that new provision of open space and sports and recreational facilities will have regard to the Borough's local open space standards and states that, where appropriate, the provision, enhancement and maintenance of open space, sports and recreational facilities will be secured through planning conditions and/or developer contributions. Policy HC10 requires that new residential or mixed-use proposals must assess the capacity of existing facilities and that this be used to determine the additional provision required, which will be secured by a reasonable contribution towards their provision. This policy seeks to encourage recreation in the local area and to prevent additional recreational disturbance to European sites elsewhere in Essex.

**3.64** A more generic requirement to avoid harm to biodiversity is stated in housing allocation Policies H5-H22 and Policy NE4 states that proposals that are likely to have an adverse impact on European sites must satisfy the requirements of the HRA, determining site specific impacts and avoiding and mitigating against impacts where identified.

## **Water Quality**

**3.65** Strategic development Policy SD1, the strategic housing Policy H1 and the implementation strategy in Policy IMP1 state that growth will be phased to align with provision of the infrastructure needed to support it. Individual strategic housing and mixed-use allocation policies restate this and, where relevant to the location, draw attention to the particular need to phase development to align with any required improvements to the drainage network or at the nearby WRC. They also require landscape buffers to be multi-functional, these functions to include surface water management such as Sustainable Drainage Systems (SuDS).

**3.66** A more generic requirement to avoid harm to biodiversity is stated in housing allocation Policies and Policy NE4 states that proposals that are likely to have an adverse impact on European sites must satisfy the requirements of the HRA, determining site specific impacts and avoiding and mitigating against impacts where identified.

**3.67** The Environment Agency regulates discharges to water via its environmental permitting regime. Any extension to existing discharge consents held by WRCs would be subject to this regime and, where relevant, the Environment Agency would also subject the proposal to HRA.

## **Flood Risk**

**3.68** Policies CC2 and CC4 state that the Council will ensure that new development does not increase the risk of flooding elsewhere. All development proposals must incorporate sustainable drainage systems (SuDS) which attenuate surface water on-site and slow run off to natural levels and which have the capacity to cope with extreme rainfall events. Where surface water cannot be attenuated fully on-site, contribution to off-site surface water management may be acceptable if it offsets the residual development impacts.

**3.69** A more generic requirement to avoid harm to biodiversity is stated in housing allocation policies and Policy NE4 states that proposals that are likely to have an adverse impact on European sites must satisfy the requirements of the HRA, determining site specific impacts and avoiding and mitigating against impacts where identified.

## **Assessment of Potential In-Combination Effects**

**3.70** Regulation 105 of the Habitats Regulations 2017 requires an Appropriate Assessment where “a land use plan is likely to have a significant effect on a European site (either alone or in combination with other plans or projects) and is not directly connected with or necessary to the management of the site”.

Therefore, where likely insignificant effects are identified for the 2022 Local Plan alone, it is necessary to consider whether these may become significant effects in combination with other plans or projects.

**3.71** The HRA Report identified which other plans and projects in addition to the 2022 Local Plan may affect the European sites that were the focus of this assessment. This included a review of relevant plans to identify those components of nearby plans that could have an impact on the European sites scoped in to this HRA, e.g. areas or towns where additional housing or employment development is proposed near to the European sites (as there could be effects from the transport, water use, infrastructure and recreation pressures associated with the new developments).

**3.72** Appendix B presents the review of other plans and projects, outlining the components of each plan that could have an impact on nearby European sites. Where likely significant in-combination effects could not be ruled out at the screening stage, the Appropriate Assessment gathered the information necessary to consider these.

## Appropriate Assessment

**3.73** Following the screening stage, if likely significant effects on European sites are unable to be ruled out, the plan-making authority is required under Regulation 105 of the Habitats Regulations to make an 'Appropriate Assessment' of the implications of the plan for European sites, in view of their conservation objectives. Appropriate Assessment should consider the impacts of the plan (either alone or in combination with other projects or plans) on the integrity of European sites with respect to their conservation objectives and to their structure and function [See reference 31]. This includes consideration of plans and projects with the potential for in-combination effects, where relevant.

## Assessing the Effects on Site Integrity

**3.74** A site's integrity depends on it being able to sustain its 'qualifying features' (i.e. the habitats and species for which it has been designated) and to ensure their continued viability. The Holohan judgement also clarifies that effects on species and habitats not listed as qualifying features, but which could result in secondary effects upon the qualifying features of European sites also need to be considered. The Appropriate Assessment therefore built upon the information set out in Appendix B of this report to consider the characteristics of supporting habitats and species that could be affected by impacts identified at the screening stage.

**3.75** A high degree of integrity at a site is considered to exist where the potential to meet a site's conservation objectives is realised and where the site is capable of self-repair and renewal with a minimum of external management support.

**3.76** A conclusion needs to be reached as to whether or not a plan would adversely affect the integrity of any European site. Assessing the effects on the site(s) integrity involves considering whether the predicted impacts of the plan policies and/or site allocations (either alone or in combination) have the potential to:

- Cause delays to the achievement of conservation objectives for the site.
- Interrupt progress towards the achievement of conservation objectives for the site.
- Disrupt those factors that help to maintain the favourable conditions of the site.
- Interfere with the balance, distribution and density of key species that are the indicators of the favourable condition of the site.
- Cause changes to the vital defining aspects (e.g. nutrient balance) that determine how the site functions as a habitat or ecosystem.

- Change the dynamics of relationships that define the structure or function of the site (e.g. relationships between soil and water, or animals and plants).
- Interfere with anticipated natural changes to the site.
- Reduce the extent of key habitats or the population of key species.
- Reduce the diversity of the site.
- Result in disturbance that could affect the population, density or balance between key species.
- Result in fragmentation.
- Result in the loss of key features [\[See reference 32\]](#).

**3.77** The conservation objectives for each SAC and SPA (as set out in Appendix B) are generally to maintain the qualifying features in favourable condition. Natural England does not define conservation objectives for Ramsar sites, but these can often be inferred from those for co-located SAC or SPA features. The Site Improvement Plans for each site provide a high-level overview of the issues (both current and predicted) affecting the condition of the designated features on the site(s) and outline the priority measures required to improve the condition of the features. An Appropriate Assessment draws on these to help to understand what is needed to maintain the integrity of the European sites.

**3.78** For each European site where an uncertain or likely significant effect was identified in relation to the plan, the Appropriate Assessment sets out the potential impacts and makes a judgement (based on the information available) on whether the impact will have an adverse effect on the integrity of the European site. Consideration was given to the potential for mitigation measures to be implemented that could reduce the likelihood or severity of the potential impacts such that there would not be an adverse effect on the integrity of the European site.

**Figure 3.1: European sites within 15km of Basildon Borough**

## Chapter 4

# HRA Screening Assessment

**4.1** This chapter presents the criteria against which individual 2022 Local Plan policies and allocations were screened, summarises the potential likely significant effects identified, considers the potential for these effects to act in-combination with those of other plans and projects, and concludes as to whether likely significant effects can be ruled out.

## Screening of Local Plan Policies for Likely Significant Effects

**4.2** An initial assessment was carried out to identify whether each of the 2022 Local Plan policies has the potential to have likely significant effects on any European site. Each policy or group of related policies was assigned one or more of the policy screening criteria set out below. Details of the reason(s) for the screening opinions reached for each policy are set out in Appendix C. Although the screening matrix presents the Screening assessment for each policy individually, the conclusions take into account the potential impacts of other plans and projects.



## Policy Screening Criteria

### **Elements of the Local Plan that will have no Effect on a European Site**

1. The policy or proposal will not itself lead to development (e.g. it relates to design or other qualitative criteria for development, or it is not a land use planning policy).
2. The policy or proposal is intended to protect the natural environment, including biodiversity.
3. The policy or proposal is intended to conserve or enhance the natural, built or historic environment, and enhancement measures will not be likely to have any effect on a European site.
4. The policy or proposal positively steers development away from European sites and associated sensitive areas, e.g. not developing in areas of flood risk or areas otherwise likely to be affected by climate change; or concentration of development in urban areas will not affect European site and will help to steer development and land use change away from European site and associated sensitive areas.

### **Elements of the Local Plan that will be Subject to HRA or Project Assessment 'Down the Line' to Protect European Sites**

5. No development could occur through this policy or proposal alone, because it is implemented through subordinate policies which are more detailed and therefore more appropriate to assess for their effects on European site and associated sensitive areas.

6. The policy or proposal makes provision for a quantum / type of development (and may or may not indicate one or more broad locations e.g. a sub-region) but the location of the development is to be selected following consideration of options in lower tier plans (development plan documents).

## **Elements of the Local Plan that Could or Would have a Potential Effect on European Sites**

7. The policy or proposal steers a quantum or type of development towards, or encourages development in, an area that includes a European site or an area where development may indirectly affect a European site.
8. The policy or proposal makes provision for a quantum, or kind of development that in the location(s) proposed would be likely to have a significant effect on a European site.
9. The policy or proposal could result in cumulative effects on European sites (especially indirect effects) of development proposals coordinated by the 2022 Local Plan, which alone would not be significant but in combination are likely to be.
10. Programmes or sequences of development delivered via a series of projects, over a period, where the implementation of the early stages would not have a significant effect on European sites, but which effectively dictate the shape, scale, duration, location, and timing of the whole project, which could have an adverse effect on such sites.
11. Developments that could close off options or alternatives in the future, that may lead to adverse effects on European sites.
12. Proposals that have a high risk of failing the tests of the Habitats Regulations at project assessment stage.

13. Policies or proposals for a quantum of development that, no matter where it was located, it would be likely to have a significant effect on a European site.

## **Potential Likely Significant Effects Identified**

**4.3** The initial Screening assessment identified the potential for likely significant effects from the development proposed by the 2022 Local Plan policies and site allocations as follows.

### **Significant Effects Likely**

**4.4** Significant effects were not considered likely in respect of any of the policies or site allocations within the 2022 Local Plan, primarily because of the distance between European sites and the areas that are the focus for development in the 2022 Local Plan.

### **Significant Effects Not Likely**

**4.5** Significant effects are not considered likely in relation to the 2022 Local Plan policies or allocations shaded in green in Appendix C for combinations of screening reasons 1, 2, 3, 4 and 5 described above. In many cases, the potential for likely significant effects was able to be ruled out because the policy was concerned with managing development proposed by other policies rather proposing development itself.

## Significant Effects Uncertain

**4.6** Uncertainty regarding significant effects existed for the 2022 Local Plan policies or allocations highlighted in orange in Appendix C. The types of potential likely significant effect identified were:

- Increased recreation pressure.
- Reduced water quality from increased discharges of treated wastewater or combined sewer overflows.
- Increased downstream flood risk.

**4.7** These potential likely significant effects were identified for both strategic policies, such as those defining the total amount and broad locations for development, and for those with more spatially specific development proposals, including strategic site allocations.

**4.8** Further consideration was therefore given to these potential significant effects in the following section.

## Recreational Pressures

**4.9** In line with the Screening assumptions set out in Chapter 3, the potential for recreational pressures to result in likely significant effects is restricted to those policies likely to result increases in human population within the zone of influence of a European site. European sites screened into this assessment comprise:

- Essex Estuaries SAC.
- Blackwater Estuaries SPA and Ramsar.
- Crouch and Roach Estuaries SPA and Ramsar.
- Thames Estuary Marshes SPA and Ramsar.

**4.10** Policies identified as potentially contributing to significant increases in recreational pressures to the above sites include the following:

- SD1 and SD3 Strategic approach to sustainable development and neighbourhood planning.
- H1, H3-H8, H11-H16, H22 (Housing).
- R2 Basildon town centre regeneration.
- R3 Laindon town centre regeneration.
- R5 Wickford town centre regeneration.

## In-Combination Effects

**4.11** The possibility of recreation pressure on the European sites scoped into the 2022 Local Plan HRA was identified within the HRAs of a number of the other plans and projects reviewed in Appendix B, as a result of residential development in those other districts (for example the Local Plans for Castle Point Borough, Chelmsford City, Maldon District and Rochford District). Given the considerable areas of the zones of influence affecting many of these sites, in-combination effects represent a potentially significant threat.

## HRA Screening Conclusion

**4.12** The potential for the 2022 Local Plan to result in likely significant effects on the above European sites as a result of increases in recreation cannot be ruled out at this stage, either alone or in-combination with other plans. As a result, this type of impact will require consideration at the Appropriate Assessment stage to determine whether the 2022 Local Plan would adversely affect the integrity of the European sites, either alone or in-combination in light of any specific approaches to mitigation and avoidance.

## Reduced Water Quality

**4.13** Whilst development site-level information from AWS suggests that WRC capacity is available to accommodate many of the proposed housing allocations individually, infrastructure and/or treatment upgrades may be required to accommodate their cumulative effect, as well as development sites with planning permission but with houses yet to be constructed. Capacity in the foul sewerage network was identified as a concern for most site allocations individually, even before consideration of cumulative effects.

**4.14** Whilst the 2022 Local Plan includes policy commitments and safeguards designed to ensure impacts associated with water quality are avoided, such measures cannot be relied upon in forming conclusions at the Screening stage.

## In-Combination Effects

**4.15** The possibility of reduced water quality effects on the European sites scoped into the Basildon 2022 Local Plan HRA was identified within the HRAs of a number of the other plans and projects reviewed in Appendix B, as a result of pressure on wastewater infrastructure capacity in those other districts (for example the Local Plans for Chelmsford City, Gravesham District, Maldon District, and Rochford District). However, those HRAs were able to rule out residual adverse effects, either at the Screening or Appropriate Assessment stage of HRA, by reliance on mitigation such as 2022 Local Plan policies to ensure provision of new infrastructure and operation of the discharge consenting regime operated by the Environment Agency.

## HRA Screening Conclusion

**4.16** Should it not prove feasible to deliver wastewater infrastructure improvements required to avoid deterioration in downstream water quality alongside the development proposed by the 2022 Local Plan, the policy

safeguards and mitigation specified in the 2022 Local Plan would be required to ensure that development does not proceed and associated impacts upon European sites avoided. Nevertheless, a reliance on this safeguard mechanism is required to provide certainty that harmful effects would be avoided. Given that avoidance and mitigation measures should not be relied upon or at the Screening stage, the potential for water quality to effect European sites will require further consideration, in light of avoidance and mitigation, at the Appropriate Assessment stage to determine whether it would result in adverse effects on European sites either alone or in-combination.

### Increased Flood Risk

**4.17** Development on greenfield locations could create impermeable surfaces and thereby increase surface drainage rates. Taken together, these have the potential to increase flood risk at downstream European sites.

**4.18** For the small number of allocations that contain an area in Flood Zone 3 (Policies SD3, E6, R5, H10, H12), the proportion of the site within Flood Zone 3 is so small that it should be possible to avoid development in that part of the site. Even if this were not the case, the loss of flood storage and consequent potential for increased flood risk downstream would be negligible. However, whilst the 2022 Plan includes policy commitments and safeguards designed to ensure impacts associated with water quality are avoided, such measures cannot be relied upon in forming conclusions at the Screening stage.

### In-Combination Effects

**4.19** The possibility of increased flood risk effects on the European sites scoped into the Basildon 2022 Local Plan HRA was not identified within the HRAs of the other plans and projects reviewed in Appendix B. In any event, those HRAs were able to rule out all residual adverse effects, either at the Screening or Appropriate Assessment stage of HRA by reliance on mitigation.

## HRA Screening Conclusion

**4.20** The mitigation described above should ensure that development does not increase surface run off rates from impermeable, built surfaces, including during extreme rainfall events. It is therefore concluded that likely significant effects can be ruled out in relation to the potential for the 2022 Local Plan proposals to result in increased flood risk at downstream European sites.

**4.21** The policy safeguards and mitigation specified in the 2022 Local Plan would ensure that development does not result in notable increases in flood risk to downstream European sites. Nevertheless, a reliance on this safeguard mechanism is required to provide certainty that harmful effects would be avoided. Given that avoidance and mitigation measures should not be relied upon or at the Screening stage, the potential for flood risk to affect European sites will require further consideration, in light of avoidance and mitigation, at the Appropriate Assessment stage to determine whether it would result in adverse effects on European sites either alone or in-combination.

## Summary of Screening Conclusions

**4.22** Likely significant effects as a result of changes in water quality and quantity (increased flood risk) and recreational pressures could not be ruled out. In previous iterations of this HRA report, the potential for likely significant effects as a result of water quality and quantity were ruled out in light of the safeguards provided within the 2022 Local Plan, and on the basis that the recommendations are implemented successfully, including the phasing of development in parallel with any necessary infrastructure upgrades. However, following the recent 'People over Wind' CJEU ruling, the effect of avoidance and mitigation measures can no longer be relied upon at the Screening stage for these effects, and therefore will require further consideration at the Appropriate Assessment stage to determine adverse effects on integrity either alone or in-combination.



**4.23** Recreational pressures are complex and given the extensive zones of influence affecting each of the sites, a strategic approach to avoiding such impacts is required. The Screening assessment was not able to rule out the potential for Basildon 2022 Local Plan to result in likely significant effects on the Essex Estuaries SAC, Blackwater Estuary SPA and Ramsar, Crouch and Roach Estuaries SPA and Ramsar, and Thames Estuary and Marshes SPA and Ramsar as a result of increases in recreation, particularly as a result of in-combination effects with population increases associated with other Local Plans. Basildon Council is taking a proactive and strategic approach to addressing this issue through close working with Natural England and other local authorities in Essex. This is considered in more detail at the Appropriate Assessment stage.

**4.24** In summary, further assessment is required at the Appropriate Assessment stage to determine whether the Basildon 2022 Local Plan will adversely affect the integrity of the European sites as a result of increases in recreational pressure changes in water quality and quantity and increased flood risk, either alone or in-combination with other plans and projects.

## Chapter 5

# Appropriate Assessment

## Recreational Pressures

**5.1** The Screening Assessment concluded that population growth associated with the 2022 Local Plan has the potential to result in likely significant effects on the Essex Estuaries SAC, Blackwater Estuary SPA and Ramsar, Crouch and Roach Estuaries SPA and Ramsar, and Thames Estuary and Marshes SPA and Ramsar sites. As a result, avoidance and mitigation is proposed to provide a sufficient level of certainty that predicted effects associated with the 2022 Local Plan will not result in adverse effects in the integrity of European sites. The approach to avoidance and mitigation, and Appropriate Assessment conclusions in light of such measures is provided below.

## Recreation and Avoidance and Mitigation Strategy (RAMS)

### Background

**5.2** The effects of recreational disturbance on coastal European sites, and/or those with sensitive bird populations have been studied and recognised throughout the UK. In light of an emerging body of research, the preferred approach to mitigation and avoidance of such impacts via the delivery of mitigation strategies has received a growing consensus of support by Natural England and other key stakeholders such as the RSPB and the Wildlife Trusts.

**5.3** Relevant examples include: the Recreation Avoidance and Mitigation Strategy (RAMS) which is currently being prepared as a strategic document by

the Suffolk Authorities of Ipswich, Suffolk Coastal and Babergh Authorities to mitigate recreational impacts of their Local Plans on the Stour and Orwell Estuaries SPA/Ramsar; the production of a joint Sustainable Access Strategy which is currently being finalised by Shepway and Rother Districts to mitigate recreational impacts of their Local Plans on the Dungeness SAC/SPA/Ramsar; and the Thames Basin Heaths Delivery Framework, which sets out the mitigation requirements to enable development within a zone of influence around the Thames Basin Heaths SPA.

**5.4** A key component of the above examples is the adoption of a strategic approach to mitigation which involves more than one local authority. The sources of recreational impacts on European sites, typically originate from more than one local authority, as is the case in Basildon. As a result, it is typically the effect of multiple and widespread sources of recreational impact which may result in adverse effects on site integrity in-combination. In light of the above, the approach to mitigation detailed herein is considered a robust and appropriate means of ensuring impacts are successfully avoided and mitigated.

**5.5** The multiple, widespread, and cross-boundary origins of recreational impacts reflect the unique attraction that these sites have for visitors. The experience that they offer cannot be replicated. As a result, whilst a multi-faceted approach is required, including the promotion of local education initiatives, and provision of alternative opportunities for recreational for those regular local visitors, the primary component of a successful RAMS will involve providing appropriate management at the European sites to avoid and minimise impacts and that such management continues to be informed by regular monitoring of people and birds.

**5.6** The potential for recreational impacts has been recognised by Basildon Borough Council from the outset, and the approach actively being adopted in addressing such impact, together with an assessment of whether – in light of the advocated avoidance and mitigation measures – the 2022 Local Plan would result in adverse effects on integrity for each of the European sites, is provided below.

## Progress of the RAMS

**5.7** Through their plan-making processes, Councils across Essex have prepared HRA assessments. Consistently, these assessments have identified the potential for population growth arising from new housing to increase recreational disturbance from their inhabitants on European sites along the Essex coastline. The HRA of Basildon Borough's Draft Local Plan 2016 was amongst those assessments which reached this conclusion. When the cumulative impact of all the individual Local Plans within Essex is considered, there is the potential for adverse effects on the integrity of the Essex Coast European sites.

**5.8** The local authorities within Essex, where cumulative harm from additional recreational disturbance to Essex Coast European sites has the potential to arise are:

- Basildon Borough Council.
- Braintree District Council.
- Brentwood Borough Council.
- Castle Point Borough Council.
- Chelmsford City Council.
- Colchester Borough Council.
- Maldon District Council.
- Rochford District Council.
- Southend Borough Council.
- Tendring District Council.
- Thurrock Borough Council.
- Uttlesford District Council.

**5.9** Within the HRA for the Basildon Borough Draft Local Plan, it was recommended that the potential for recreational disturbance arising from growth in Basildon Borough to cause harm to European sites on the Essex Coast could be managed through appropriate on-site provision of open space within development sites. However, Natural England, whilst welcoming this measure, indicated within its consultation response to the Draft Local Plan that this may not be sufficient to fully offset the recreational impacts of growth, as the coast is in itself an attractor of recreational activities, which cannot be recreated in non-coastal locations.

**5.10** In March 2016, Natural England, as both a statutory consultee and defined 'Duty to Cooperate' public body made an objection to the Basildon Borough Draft Local Plan and HRA setting out concerns in this regard that would need to be resolved prior to the adoption of the Local Plan. This was reported back to the former Cabinet in September 2016 which determined that work should be undertaken in relation to policies within Chapter 16 of the Local Plan (The Natural Environment) in order improve the soundness of the Local Plan (Action 45).

**5.11** In March 2017, Council officers and LUC met with representatives from Natural England to discuss a way forward that would enable the Basildon Borough Local Plan to progress, whilst overcoming its concerns. It was clear from this meeting that Basildon Borough Council could not resolve the objection in isolation to other local authorities and a coordinated approach would need to be brokered under the Duty to Cooperate to the satisfaction of Natural England if the Basildon Borough Local Plan (and other Local Plans underway in Essex) are to ensure adverse effects on European sites are to be avoided.

**5.12** Further discussions then took place amongst South Essex local authorities to alert them to the emerging issue and specialist legal advice was sought to ensure the Council was clear on its legal duties and what it could reasonably expect from others. The legal advice confirmed that the Council would need to resolve the outstanding objection from Natural England in relation to the recreational impacts of growth on European sites even if they were outside the Borough, if it is to be found legally sound, and capable of adoption.

**5.13** In September 2017, Natural England met with officers of those authorities with advanced emerging Local Plans in Essex, including Basildon, and advocated that it would be better to secure a joint approach to addressing this issue given that local authorities such as Basildon and Chelmsford, whilst within the zones of influence for Essex Coast European sites, do not have coastline in their areas and cannot therefore deliver any necessary direct avoidance and mitigation measures themselves, and would therefore need the cooperation of others.

**5.14** Following on from that initial meeting and through the brokering of the Essex Planning Officers' Association (EPOA) a further meeting was held in November 2017 of officers from affected Essex local authorities, as listed above, and Natural England. At this meeting, consideration was given to how cross-boundary recreational disturbance on European sites had been addressed elsewhere in the UK to ensure compliance, with examples around the Solent and on the Suffolk coast considered. In both of these cases, a RAMS has been prepared. The RAMS identifies the measures needed to direct recreational activities away from the most sensitive areas for nature conservation, and also agrees measures to mitigate the residual harm arising from recreational activities that cannot otherwise be avoided.

**5.15** In relation to these other examples, it has been possible to consider lessons learnt from the practice of other local authorities through discussions with their officers. One such recommendation was that the scale and complexity of the project needs a dedicated Project Manager. This is considered to be particularly important given the large number of local authorities which would be party to an Essex Coast RAMS. Additionally, RAMS themselves are particularly large and technical documents. Both the Solent and more recently Suffolk Coast local authorities have developed Supplementary Planning Documents, to exist alongside their Local Plans and RAMS to help interpret its requirements at a planning application level.

**5.16** Following professional support from the Essex Planning Officers' Association to deliver a more coordinated approach, a proposal was therefore developed by Place Services at Essex County Council for the preparation of an Essex Coast RAMS and associated Supplementary Planning Document. This

has allowed all 12 local authorities within the zones of influence for the Essex Coast European sites to work together to identify a strategy for avoiding and mitigating harm to these sites, thereby enabling their respective Local Plans to be adopted unhindered by a legal impediment and therefore deliverable without delay. The proposal included the provision of an experienced Project Manager who has previously worked on a joint plan covering 10 local authority areas.

**5.17** The Essex Coast RAMS Strategy Document, which will ensure that the RAMS will be delivered in perpetuity, was finalised in January 2019 and adopted by the 12 local authority partners, including Basildon Borough Council. As already detailed in this report, Natural England were involved in the preparation of the Essex Coast RAMS and endorse the RAMS Strategy Document.

**5.18** A RAMS SPD was consulted on in January-February 2020. The SPD has now been finalised and Natural England have confirmed that they endorse the SPD. Basildon Borough Council adopted the SPD on 22<sup>nd</sup> October 2020. The Essex Coast RAMS has the brand name, Bird Aware Essex Coast, which uses the same branding as the well-established Bird Aware Solent. One of the partner LPAs has become the Accountable Body. They will be responsible for developer contributions and will employ a Delivery Officer to manage the project.

**5.19** The additional measures required to avoid AEOI are applicable to each of the European sites listed above, and therefore the recommended approach to mitigation and avoidance detailed herein in the form of a RAMS is applicable to each of them. Albeit, where site-specific measures are required, this is made clear below.

### Commitment within the Local Plan

**5.20** Policy NE1 of the 2022 Local Plan specifies that “The Council will work with partners to deliver the Recreation Avoidance and Mitigation Strategy (RAMS) for the Essex Coast Natura 2000 sites, ensuring that recreational

activities resulting from the population growth arising in this plan, and the plans of other nearby authorities, is managed and mitigated in such a way as to avoid harm to these important nature conservation designations". This, together with a memorandum of understanding between the Essex Authorities clearly demonstrates a robust level of commitment to implementing the Essex RAMS and avoiding harm to European sites as a result of recreational increases.

## **Memorandum of Understanding**

**5.21** In order for the 12 local authorities to demonstrate that they are working effectively together to address this cross-boundary matter, a Memorandum of Understanding (MoU) has been prepared setting out the steps the authorities will take in partnership. Each local authority has been invited to sign this MoU as a demonstration of this commitment. In signing the MoU, the local authority has demonstrated that it is fulfilling the Duty to Cooperate in relation to this matter, both in respect of neighbouring authorities and also in respect of Natural England which is also a Duty to Cooperate body. This will help to ensure that the 2022 Local Plan can proceed towards adoption in the knowledge that the legal requirements of the Conservation of Habitats and Species Regulations 2017 are being adequately addressed.

## **Key Principles of RAMS**

**5.22** A key aspect of the RAMS is that it needs to be an adaptive and pre-emptive approach which responds to monitoring results. The nature, location and frequency of visitor patterns and bird distribution are subject to change. As a result, the mitigation measures being delivered by the RAMS are likely to require ongoing refinement in response to changes identified by monitoring results. This will ensure that impacts on European sites are identified at an early stage and pre-empted, thereby enabling timely remedial measures to be put in place to avoid such impacts ever resulting in Adverse Effects on Integrity (AEOI).



**5.23** Key principles upon which the RAMS are based, include the use of appropriate funding mechanisms, requirements for updated monitoring, and the specific measures required in terms of provision of open space and green infrastructure and on-site management of European sites, are outlined below. These principles were further developed by the Essex Authorities in close consultation and agreement with Natural England to ensure that a suitable RAMS is in place prior to adoption of the 2022 Local Plan.

## **Mechanisms of Funding and Delivery**

**5.24** Discussions with Natural England have identified that the preference for delivery of a RAMS will be via a Supplementary Planning Document (SPD). Examples of mitigation strategies being provided in the form of an SPD include the Thames Basin Heaths SPA Avoidance and Mitigation SPD (TBH SPD), which was developed to provide guidance to ensure that new development does not have adverse effects on this SPA which is designated for heathland birds susceptible to recreational pressures.

**5.25** The TBH SPD has been adopted by eleven local authorities which incorporate the SPA's zone of influence and involves an approach to mitigation which includes i) provision of Suitable Alternative Natural Greenspace (SANGs), and ii) Access Management. The TBH SPD provides a specific approach to access management. The TBH SPD specifies that existing landowners and managers should deliver access management and funding should come from developer contributions, with funding provided in perpetuity. Access management is coordinated strategically by Natural England working with local authorities in line with an overarching strategy.

**5.26** A similar approach has been applied for the RAMS produced by the Essex Authorities. This includes access management at the SPAs which is funded by a charge levied on developer contributions which includes an allowance for the cost of this service, and that the charge collected in relation to access management measures are pooled for strategic allocation.

**5.27** To ensure that there is a sufficient level of certainty that the RAMS will successfully mitigate the recreational impacts identified in this assessment and will continue to do so for the lifetime of the 2022 Local Plan, the Essex Coast RAMS has been prepared, adopted by Basildon Borough Council and approved by Natural England prior to adoption of the Local Plan.

## **Provision of Updated Visitor Monitoring**

**5.28** To ensure that the RAMS continues to be based upon up-to-date information, it is recommended that updated visitor monitoring is undertaken in the first two years of the 2022 Local Plan being adopted and is repeated no less frequently than once every five years. This will ensure that the RAMS provides an up-to-date baseline against which to measure the status, extent and effect of recreational pressures going forward, and will ensure that the mitigation measures committed to in the RAMS continue to be based upon up-to-date information and in agreement with Natural England.

**5.29** It will also be important to ensure that up to date bird data are available to inform mitigation measures. This is regularly undertaken at each of the European sites as part of the BTO's WeBS Core Counts and Low Tide Counts. It is therefore predicted that such information will be available but, to ensure certainty, a commitment will be required by the Council that, in the unlikely event that suitably up to date bird survey data are not available during each five-year period, they will undertake equivalent survey work to inform the RAMS.

## **Provision of Open Space and Green Infrastructure**

**5.30** Given the unique nature and attraction of these coastal European sites, provision of alternative open space is less applicable as a mitigation measure and therefore the focus of the RAMS should be primarily on access management and monitoring as described below.

**5.31** Nevertheless, despite not being the key focus, the provision of alternative natural green space and green infrastructure (GI) represents an important aspect of the overall mitigation required. The provision of alternative greenspace in mitigating the effect of recreational pressures on sensitive European sites is actively encouraged by Natural England elsewhere. For example, it forms a key component of the Thames Basin Heaths Delivery Framework. Therefore, the strategic approach to incorporating protective measures specified in the 2022 Local Plan is considered likely to provide an effective contribution in mitigating significant effects associated with recreation.

**5.32** To maximise the effectiveness of its role in mitigating recreational impacts on the coastal European sites, the design and management of open space and green infrastructure will need to be focused towards attracting those groups of visitors who regularly visit the European sites.

**5.33** Despite commitments in the 2022 Local Plan to minimum standards for open space and protection and enhancement of GI, in order for such measures to effectively contribute towards mitigating recreational impacts at European sites, the design and management of GI and open space will need to be specifically designed and managed to provide a desirable alternative location for the regular daily activities typically undertaken by local residents at European sites, including most notably walking and dog walking. This can be achieved by ensuring that the management of such sites is specifically targeted towards ensuring that these target groups are provided for. For example, sites which provide parking, a range of walking routes including short and long-distance options, and which encompass a range of habitat types, are perceived as being safe, and provide areas which are safe for dogs to exercise off of leads and which provide dog bins are likely to be particularly appealing.

### **Watercraft Disturbance – Code of Conduct**

**5.34** Water-based recreational activities are likely to be more prevalent during summer months when disturbance to bird populations for which the European sites are designated is less likely. Nevertheless, water based recreation does occur during the winter and passage months, and where such activities occur in

close proximity to important bird areas, there is a high probability of disturbance to birds while feeding or roosting in otherwise undisturbed locations.

**5.35** It is difficult to manage and monitor the location and frequency of water activities because they are less predictable and take place in inaccessible locations. As a result, it is recommended that the most appropriate means of reducing the frequency and severity of such activities is by promoting a Code of Conduct and encouraging increased self-regulation from participants. This could be achieved via an education and awareness campaign targeted at the leisure operators, marinas, sailing clubs and holiday parks, in addition to quaysides, jetties and other launch sites. Such an approach could be undertaken via a targeted programme of education including via promotional leaflets, posters and signage.

**5.36** A watercraft Code of Conduct would not in isolation address all the issues associated with recreational pressures. Indeed, no one single measure should be solely relied upon. The purpose of a RAMS, of which a Code of Conduct would form part, is to provide a suite of measures which, together, provide sufficient certainty that adverse effects on integrity would be avoided. A Code of Conduct would not guarantee the avoidance of AEoI on its own, but it would likely provide an important role in encouraging people to undertake recreational activities responsibly, particularly if linked to penalties and enforcement as is intended.

**5.37** Encouraging responsible recreation is a key measure endorsed by land managers of important wildlife sites across the country, including Natural England, RSPB and the Wildlife Trusts. These bodies regularly provide educational material at sites to encourage visitors to comply with key objectives. A good example is the long established mitigation strategies in place for heathland SPAs in the south of England where the use of educational material, including signage, leaflets and via wardening has been successful in encouraging people to put dogs on a lead, stick to accessible footpaths, and avoid activities which could otherwise be harmful to the SPA features.

**5.38** A Code of Conduct approach would be targeted to the providers of recreational watercraft such as marinas, launch sites, boat yards and tourist operators, not to individual residences. This approach is not intended to mitigate for the small proportion of irresponsible people, but rather to educate and inform the majority of people who are keen to act in responsible and sensitive manner. Indeed, most forms of disturbance to birds from watercraft are a result of ignorance rather than intentional malice, and therefore whilst a Code of Conduct would not be solely effective at eliminating potential impacts, it has a key role to play in contributing to the effectiveness of overall mitigation and avoidance, and is therefore a key component of any RAMS.

## **On-Site Management and Monitoring**

**5.39** The European sites are typically managed by Natural England, Essex Wildlife Trust and the RSPB. Therefore, the RAMS was developed in close consultation and agreement with these key stakeholders to ensure that the measures proposed are targeted to resolving specific issues and recreational threats and maximum the benefit of the measures proposed in mitigating recreational impacts. This was achieved via a series of workshops for the specific European sites which includes appropriate stakeholder representatives such as site managers and area advisers.

**5.40** Detailed and site-specific management measures are provided in the RAMS and have been specifically informed via the workshops and consultation described above. Recommended aspects include, but not limited to, the following:

- Provision of physical barriers to movement (fencing, screening, planting and bird hides).
- Provision of wardening, whether part-time, permanent or seasonal.
- Provision of educational resources including promoting self-regulation.
- Education initiatives such as provision of interpretation boards and signage, leaflets, posters, and liaison with local schools and leisure operators.

- Provision of infrastructure to encourage activities to focus on specific areas, e.g. via path upgrades, provision of benches and signage etc.
- Clear route signage.
- Closure and rerouting of paths during sensitive periods.
- Promoting a code of conduct aimed at providers and participants of water based recreational.
- Habitat management and enhancement to provide locations for birds away from disturbance sources (e.g. high tide roosts).

**5.41** As described above, to ensure that the RAMS continues to be based upon up-to-date information, regular monitoring will be required, with visitor and bird monitoring being required no less frequently than every five years. Bird surveys are regularly undertaken at each of the European sites as part of the BTO's WeBS Core Counts and Low Tide Counts and it is therefore predicted that such information will be available, but to ensure certainty, a commitment will be required by the Basildon Borough Council together with the other Essex Authorities that in the unlikely event that suitably up to date bird survey data are not available during each five year period, they will undertake equivalent survey work to inform the RAMS.

## Thames Estuary and Marshes SPA and Ramsar

**5.42** The zone of influence of this SPA/Ramsar includes much of the southern part of Basildon. However, the majority of the site is separated from the Borough by the Thames Estuary and as a result, accessing the majority of this SPA/Ramsar would require a car journey in excess of 30 miles and require the use of the Queen Elizabeth II Toll Bridge. Therefore, the 2022 Local Plan wouldn't be expected to contribute to increases in recreational pressures to the majority of this SPA/Ramsar.

**5.43** However, a single component part of the SPA/Ramsar is located on the northern side of the River Thames at East Tilbury. Several site allocations are located within the 8.1km zone of influence for this component site, including H6 to H8 which are located in and around Basildon. The component part of the site at East Tilbury includes the Coalhouse Fort and the Thurrock Thameside Nature Park, both of which are actively managed and have restrictions and specific infrastructure designed to restrict and control public access, in addition to active wardening.

**5.44** In light of the above, the likelihood of increased population growth associated with housing allocations in the Basildon Local Plan adversely affecting the integrity of this SPA/Ramsar is considered low. When the additional approach to avoidance and mitigation outlined above is also considered, there is a sufficiently high level of certainty to enable a conclusion that the 2022 Local Plan will not result in adverse effects on the integrity of the Thames Estuary and Marshes SPA and Ramsar, either alone or in-combination.

## Crouch and Roach Estuaries SPA and Ramsar

**5.45** The Crouch and Roach Estuaries SPA and Ramsar sites are located 1.5km to the northeast of Basildon Borough at the closest point. A zone of influence of 4.5km has been used for this SPA/Ramsar and therefore only a small number of the housing allocations located in the north-east of the Borough at Wickford, are located within the zone where they may contribute to increases in recreational pressures at the site. Such housing allocations include H12 to H15.

**5.46** The closest part of the SPA to Basildon is comprised of the River Crouch, where public footpaths occur along much of both of the river banks for much of its length. As a result, the qualifying birds using the upper estuary are likely to be particularly susceptible to the effects of disturbance from walkers and dog walkers in this location.

**5.47** Water based recreational activities including sailing, motorboats, and jet skis have also been identified as resulting in disturbance to SPA/Ramsar bird species. Within the Crouch Estuary, the primary marina's and launch sites are located at Burnham-on-Crouch and Althorne which are located over 10km from Basildon and therefore less likely to represent a significant threat. Nevertheless, the effect of water-based recreation on SPA/Ramsar birds is difficult to predict and manage but studies from elsewhere in the UK [See reference 33] suggest that people will travel relatively far to partake in such activities, potentially including from within Basildon Borough.

**5.48** Given the specialist nature of these waterbourne activities and that their prevalence is greater in the summer months when impacts to the wintering and passage bird features are unlikely, the increase in such activities as a result of the 2022 Local Plan is considered likely to be small. Nevertheless, to enable a sufficient level of certainty that the policies contained in the Local Plan will not result in adverse effects on the Crouch and Roach Estuaries SPA and Ramsar, either alone or in-combination with wider strategic growth in South Essex, appropriate mitigation will be required.

**5.49** An effective means of control is likely to be through the promotion of a Code of Conduct delivered primarily by marinas and leisure operators and incorporated as part of the RAMS approach as described above.

**5.50** In summary, population growth and increased coastal visits as a result of the 2022 Local Plan is likely to contribute to increases in both land-based and water-based recreational pressures at the Crouch and Roach Estuaries SPA and Ramsar site, which both alone and in-combination with the wider strategic population growth in South Essex, has the potential, in the absence of mitigation and avoidance measures, to adversely affect the integrity of the site.

**5.51** Nevertheless, the RAMS approach described above, which is actively being implemented by Basildon Borough Council in collaboration with the other Essex Authorities, is considered a suitably robust and appropriate measures to ensure that adverse effects on this SPA/Ramsar as a result of recreational pressures will be avoided. Therefore, it has been concluded that the 2022 Local



Plan will not result in adverse effects on the integrity of the Crouch and Roach Estuaries SPA and Ramsar as a result of recreational impacts, either alone or in-combination.

## Essex Estuaries SAC

**5.52** Essex Estuaries SAC is designated for the presence of coastal and inter-tidal habitats and the area of coverage in South Essex is largely shared with the Crouch and Roach Estuaries SPA and Ramsar. The habitats for which the SAC is designated are resilient to the disturbance impacts described above for the Crouch and Roach Estuaries SPA and Ramsar, but this site is vulnerable to the physical damage which can be caused by water-based recreation. The SAC is far less susceptible to the effects of trampling and erosion because the inaccessibility of inter-tidal habitats provides a natural deterrents to terrestrial based trampling and erosion.

**5.53** The SAC is also vulnerable to the effects of localised nutrient enrichment and other negative factors associated with recreation such as littering, fire and vandalism, albeit the qualifying habitats, which are regularly inundated by tidal waters are not sensitive to such factors at this scale.

**5.54** As a result, the primary threat for the Essex Estuaries SAC in relation to recreation is associated with increases in waterbourne activities as described above for the Crouch and Roach Estuaries SPA and Ramsar. Within the Crouch Estuary, the primary marinas and launch sites are located at Burnham-on-Crouch and Althorne which are located over 10km from Basildon and therefore less likely to represent an increased threat as a result of the Local Plan. Nevertheless, the effect of water-based recreation on SAC habitats as a result of recreational activities is difficult to predict and manage and studies from elsewhere in the UK suggest that people will travel relatively far to partake in such activities, potentially including from within Basildon Borough.

**5.55** An effective means of control is likely to be through the promotion of a Code of Conduct delivered primarily by marinas and leisure operators and incorporated as part of the RAMS approach as described above.

**5.56** The Essex Estuaries SAC are located 14.4km to the northeast of Basildon Borough at the closest point. A zone of influence of the respective European sites, which overlap the SAC was applied in this assessment. This included 4.5km in relation to Crouch and Roach Estuaries SPA and Ramsar and 22km in relation to Blackwater Estuary SPA and Ramsar has been used for this SAC and therefore a number of the housing allocations located in the north-east of the Borough at Wickford and Basildon, are located within the zone where they may contribute to increases in recreational pressures at the site. Such housing allocations include H5, H11 to H16 and H22.

**5.57** In summary, population growth and increased coastal visits as a result of the 2022 Local Plan is likely to contribute to increases in recreational pressures at the Essex Estuaries SAC, with water-based activities being the most notable in terms of their threat. Both alone and in-combination with the wider strategic population growth in South Essex, this has the potential, in the absence of mitigation and avoidance measures, to adversely affect the integrity of the site.

**5.58** Nevertheless, the RAMS approach described above, which is actively being implemented by Basildon Borough Council in collaboration with the other Essex Authorities, is considered a suitably robust and appropriate measures to ensure that adverse effects on this SPA/Ramsar as a result of such recreational pressures will be avoided. Therefore, it has been concluded that the 2022 Local Plan will not result in adverse effects on the integrity of the Essex Estuaries SAC as a result of recreational impacts, either alone or in-combination.

## Blackwater Estuary SPA and Ramsar

**5.59** The Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar stretches from Maldon in the west to the northwest of Mersea Island in Colchester Borough where it meets the western extent of the Colne Estuary

(Mid-Essex Coast Phase 2) SPA and Ramsar. Much of the site is located along the coastline of Colchester. The key threat to this site relates primarily to disturbance of water birds from people and dogs, in addition to water sports such as use of jet skis and motorboats.

**5.60** The closest part of the SPA and Ramsar to Basildon is comprised of the River Blackwater, including Lawling Creek, Mayland Creek and Southerly Creek, which are accessible by public footpaths. As a result, the qualifying birds using the upper estuary are likely to be particularly susceptible to the effects of disturbance from walkers and dog walkers in this location.

**5.61** Water based recreational activities including sailing, motorboats, and jet skis have also been identified as resulting in disturbance to SPA/Ramsar bird species. Within the Blackwater Estuary, the primary marina's and launch sites are located at Maldon, Heybridge, Tollesbury and West Mersea. Given the distance of these marinas from Basildon Borough with the closest located 15km away and the presence of alternative similar activities closer to the Borough impacts are not considered to be significant. Nevertheless, the effect of water-based recreation on SPA/Ramsar birds is difficult to predict and manage but studies from elsewhere in the UK [See reference 34] suggest that people will travel relatively far to partake in such activities, potentially including from within Basildon Borough.

**5.62** Given the specialist nature of these waterbourne activities and that their prevalence is greater in the summer months when impacts to the wintering and passage bird features are unlikely, the increase in such activities as a result of the 2022 Local Plan is considered likely to be small. Nevertheless, to enable a sufficient level of certainty that the policies contained in the Local Plan will not result in adverse effects on the Blackwater Estuary SPA and Ramsar, either alone or in-combination with wider strategic growth in South Essex, appropriate mitigation will be required.

**5.63** An effective means of control is likely to be through the promotion of a Code of Conduct delivered primarily by marinas and leisure operators and incorporated as part of the RAMS approach as described above.

**5.64** The Blackwater Estuary SPA and Ramsar sites are located 14.4km to the northeast of Basildon Borough at the closest point. A zone of influence of 22km has been used for this SPA/Ramsar and therefore a number of the housing allocations located in the north-east of the Borough at Wickford and Basildon, are located within the zone where they may contribute to increases in recreational pressures at the site. Such housing allocations include H5, H11 to H16 and H22.

**5.65** In summary, population growth and increased coastal visits as a result of the Basildon Local Plan is likely to contribute to increases in both land-based and water-based recreational pressures at the Blackwater Estuary SPA and Ramsar site, which both alone and in-combination with the wider strategic population growth in South Essex, has the potential, in the absence of mitigation and avoidance measures, to adversely affect the integrity of the site.

**5.66** Nevertheless, the RAMS approach described above, which is actively being implemented by Basildon Borough Council in collaboration with the other Essex Authorities, is considered a suitably robust and appropriate measures to ensure that adverse effects on this SPA/Ramsar as a result of recreational pressures will be avoided. Therefore, it has been concluded that the 2022 Local Plan will not result in adverse effects on the integrity of the Blackwater Estuary SPA and Ramsar as a result of recreational impacts, either alone or in-combination.

## Summary Conclusion

**5.67** In summary, the implementation of RAMS is now a widely advocated means of mitigating impacts associated with recreation at European sites. In light of this, and given that Basildon Council have prepared and adopted the Essex Coast RAMS in close consultation with Natural England and other key stakeholders, and have embedded the delivery and monitoring of the RAMS in specific policy commitments, there is sufficient certainty that the 2022 Local Plan will not result in adverse effects on the integrity of the Thames Estuary and Marshes SPA and Ramsar Site, Crouch and Roach Estuaries SPA and

Ramsar, Essex Estuaries SAC and Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar either alone, or in-combination with other plans and projects as a result of recreational impacts.

## **Water Quality**

**5.68** The Screening stage could not rule out the potential for likely significant effects for Policies SD1, R2, R3, R5, H1, H3, H4, and H5-H23. Whilst development site-level information from AWS suggests that WRC capacity is available to accommodate many of the proposed housing allocations individually, infrastructure and/or treatment upgrades may be required to accommodate their cumulative effect, as well as development sites with planning permission but with houses yet to be constructed. Capacity in the foul sewerage network was identified as a concern for most site allocations individually, even before consideration of cumulative effects.

**5.69** Strategic development Policy SD1, the strategic housing Policy H1 and the implementation strategy in Policy IMP1 state that growth will be phased to align with provision of the infrastructure needed to support it. Individual strategic housing and mixed use allocation policies restate this and, where relevant to the location, draw attention to the particular need to phase development to align with any required improvements to the drainage network or at the nearby WRC. They also require landscape buffers to be multi-functional, these functions to include surface water management such as Sustainable Drainage Systems (SuDS).

**5.70** A more generic requirement to avoid harm to biodiversity is stated in housing allocation Policies and Policy NE4 states that proposals resulting in impacts in European sites will not normally be permitted.

**5.71** The Environment Agency regulates discharges to water via its environmental permitting regime. Any extension to existing discharge consents held by WRCs would be subject to this regime and, where relevant, the Environment Agency would also subject the proposal to HRA.

**5.72** The possibility of reduced water quality effects on the European sites scoped into the 2022 Local Plan HRA was identified within the HRAs of a number of the other plans and projects reviewed in Appendix B, as a result of pressure on wastewater infrastructure capacity in those other districts (for example the Local Plans for Chelmsford City, Gravesham District, Maldon District, and Rochford District). However, those HRAs were able to rule out residual adverse effects, either at the Screening or Appropriate Assessment stage of HRA, by reliance on mitigation such as Local Plan policies to ensure provision of new infrastructure and operation of the discharge consenting regime operated by the Environment Agency.

**5.73** Should it not prove feasible to deliver wastewater infrastructure improvements required to avoid deterioration in downstream water quality alongside the development proposed by the 2022 Local Plan, the safeguards described under ‘mitigation’ above should ensure that development does not proceed.

**5.74** Correspondence between the Council and the Environment Agency [[See reference 35](#)] provides additional certainty that the total numbers of houses allocated in the 2022 Local Plan to Wickford, Pitsea and Basildon could be accommodated within the capacity of the wastewater treatment capacities of the corresponding WRCs. The allocation to Billericay is identified as being very close to the WRC capacity and likely to require an increase to the permitted capacity or connection of some of the development to other WRCs; the Environment Agency recommends that development be phased until additional sewage treatment capacity becomes available.

**5.75** In light of the mitigation available it is therefore concluded that adverse effects on integrity can be ruled out in relation to the potential for 2022 Local Plan proposals to result in reduced water quality on European sites, either alone or in-combination.

## Flood Risk

**5.76** The Screening stage could not rule out the potential for likely significant effects as a result of flood risk for Policies E5, E6, R13, H4-H22.

**5.77** Development on these greenfield locations could create impermeable surfaces and thereby increase surface drainage rates. Taken together, these have the potential to increase flood risk at downstream European sites.

**5.78** For the small number of allocations that contain an area in Flood Zone 3 (Policies R5, H11, H13), the proportion of the site within Flood Zone 3 is so small that it should be possible to avoid development in that part of the site and even if this were not the case, the loss of flood storage and consequent potential for increased flood risk downstream would be negligible.

**5.79** Policies CC2 and CC4 state that the Council will ensure that new development does not increase the risk of flooding elsewhere. All development proposals must incorporate sustainable drainage systems (SuDS) which attenuate surface water on-site and slow run off to natural levels and which have the capacity to cope with extreme rainfall events. Where surface water cannot be attenuated fully on-site, contribution to off-site surface water management may be acceptable if it offsets the residual development impacts.

**5.80** A more generic requirement to avoid harm to biodiversity is stated in housing allocation policies and Policy NE4 states that proposals resulting in adverse impacts within European sites will not normally be permitted.

**5.81** The possibility of increased flood risk effects on the European sites scoped into the 2022 Local Plan HRA was not identified within the HRAs of the other plans and projects reviewed in Appendix B. In any event, those HRAs were able to rule out all residual adverse effects, either at the Screening or Appropriate Assessment stage of HRA, by reliance on mitigation. Similarly, the mitigation considered for the 2022 Local Plan has allowed residual increased flood risk

effects on European sites to be ruled out. The possibility of effects in-combination with other plans and projects is therefore ruled out.

**5.82** The mitigation described above would ensure that development does not increase surface run off rates from impermeable, built surfaces, including during extreme rainfall events. It is therefore concluded that adverse effects on integrity can be ruled out in relation to the potential for 2022 Local Plan proposals to result in increased flood risk at downstream European sites, either alone or in-combination.



## Chapter 6

### Conclusion

**6.1** The HRA Screening stage identified that further consideration was required at the Appropriate Assessment stage to determine whether the 2022 Local Plan, either alone or in-combination, would adversely affect the integrity of European sites as a result of increases in recreational pressure, changes in water quality and quantity, and increased flood risk.

**6.2** With regards to recreational pressures, the implementation of recreational avoidance and mitigation strategies (RAMS) is now a widely advocated means of mitigating impacts associated with recreation at European sites. In light of this, and given that Basildon Council have prepared and adopted the Essex Coast RAMS in close consultation with Natural England and other key stakeholders, and have embedded the delivery and monitoring of the RAMS in specific policy commitments, there is sufficient certainty that the 2022 Local Plan will not result in adverse effects on the integrity of the Thames Estuary and Marshes SPA and Ramsar Site, Crouch and Roach Estuaries SPA and Ramsar, Essex Estuaries SAC and Blackwater Estuary SPA and Ramsar either alone, or in-combination with other plans and projects as a result of recreational impacts.

**6.3** With regards to water quality and quantity (flood risk), the provision of mitigation and avoidance safeguards committed to in the 2022 Local Plan were considered sufficient to provide assurance that new phases of development would only be delivered when the necessary infrastructure upgrades and provisions are in place. This was considered suitably robust to ensure that adverse effects on the integrity of European sites as a result of change in water quality or quantity arising from 2022 Local Plan would be avoided, either alone or in-combination.

LUC, December 2021

## Appendix A

# Attributes of European Sites

**A.1** This appendix contains information on the European sites scoped into the HRA. Site areas and designated features are drawn from SAC and SPA Standard Data Forms and Ramsar Site Information Sheets [See reference 36]. The overviews of sites and their locations are drawn from Natural England's Site Improvement Plans [See reference 37]. Site conservation objectives are drawn from Natural England's website and are only available for SACs and SPAs [See reference 38].

## Abberton Reservoir SPA (726.2ha)

### Overview of Site and Its Location

**A.2** Abberton Reservoir is a large water storage reservoir close to the Essex coast. It is one of the most important reservoirs in the country for overwintering waterfowl and also supports substantial aggregations of moulting birds in early autumn and a large colony of tree-nesting cormorants. Causeways divide the reservoir into three sections. Currently the water level of the main, eastern section is being raised by 3 metres to increase storage capacity. As part of the level-raising scheme, the original concrete banks have been removed and the shoreline re-profiled, creating extensive new areas of shallow wetland habitat for the site's waterfowl.

### Qualifying Features

**A.3** Supports the following internationally important waterbird assemblage:

- Great crested grebe, *Podiceps cristatus* (Non-breeding).

## Appendix A Attributes of European Sites

- Great cormorant, *Phalacrocorax carbo* (Breeding).
- Mute swan, *Cygnus olor* (Non-breeding).
- Eurasian wigeon, *Anas Penelope* (Non-breeding).
- Gadwall, *Anas strepera*: Gadwall (Non-breeding).
- Eurasian teal, *Anas crecca* (Non-breeding).
- Northern shoveler, *Anas clypeata* (Non-breeding).
- Common pochard, *Aythya farina* (Non-breeding).
- Tufted duck, *Aythya fuligula* (Non-breeding).
- Common goldeneye, *Bucephala clangula* (Non-breeding).
- Common coot, *Fulica atra* (Non-breeding).
- European golden plover, *Pluvialis apricaria* (Non-breeding).

## Conservation Objectives

**A.4** With regard to the SPA and the individual species and/or assemblage of species for which the site has been classified, and subject to natural change.

**A.5** 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; and
- The distribution of the qualifying features within the site.

## Pressures and Threats

### Siltation

**A.6** Silt entering the reservoir via Layer Brook is gradually accumulating in the western and central sections. This increases water turbidity and reduces light penetration, limiting the growth of the submerged aquatic plants on which the reservoir's fauna – including many of the waterbirds – largely depends. Siltation also reduces the water depth and increases the already high nutrient load. Now that concrete banks have been removed as part of the water-level raising scheme, siltation in the eastern section might also increase as a result of wave action until the earth banks have become vegetated. Essex and Suffolk Water is monitoring water quality, aquatic vegetation and bird numbers and carrying out a programme of work to accelerate vegetation colonisation of the new earth banks.

### Public Access/Disturbance

**A.7** Human disturbance to feeding and resting waterbirds reduces their energy intake and increases energy expenditure. This can be critical if the birds are already stressed by severe weather or other factors. Disturbance at ground level is well controlled by Essex and Suffolk Water, though there is occasional trespassing. Disturbance from the air by low-flying civilian and military aircraft occurs several times each year and is more difficult to manage.

### Planning Permission: General

**A.8** The reservoir's waterbirds often fly over surrounding farmland on their way to and from the nearby Blackwater and Colne estuaries. Some species also use the surrounding fields for feeding. Inappropriate development in the vicinity could therefore have adverse effects on them. Planning legislation and the Habitats Regulations provide regulatory mechanisms but for some new types of

development, published data from well-designed impact studies at comparable sites appears to be limited.

### Changes in Species Distributions

**A.9** The reservoir's breeding colony of tree-nesting cormorants has declined from a peak of over 500 pairs in the mid-1990s to about 160 pairs in 2010. Reasons for the decline are unknown. Possibilities include a reduction in suitable nest sites, predation (possibly linked to lower water levels in the central section), cormorant control measures at fisheries, or a decline in summer food supply within foraging distance of the colony.

### Bird Strike

**A.10** Mute swans, and possibly other species, have been killed as a result of colliding with overhead power lines near the reservoir.

### Water Pollution

**A.11** Water stored in the reservoir is high in nutrients (eutrophic) as it comes from intensively farmed catchment areas. As a result, algal blooms are regular in summer. In some years these may include toxic blue-green algae that can kill wildfowl, though no significant mortality has been recorded.

### Air Pollution: Risk of Atmospheric Nitrogen Deposition

**A.12** The site is identified as at risk from air pollution as Nitrogen deposition levels exceed the site-relevant critical load for ecosystem protection. However the site's Nitrogen load is likely to be dominated by levels in the water entering

the reservoir (mainly from the distant Ouse catchment) rather than direct deposition.

### Non-qualifying habitats and species upon which the qualifying habitats and/or species depend

- In general, the qualifying bird species of the SPA rely on:
  - The sites ecosystem as a whole (see list of habitats below).
  - Maintenance of populations of species that they feed on (see list of diets below).
  - Off-site habitat, which provide foraging habitat for these species.
  - Open landscape with unobstructed line of sight within nesting, foraging or roosting habitat.
- Great crested grebe, *Podiceps cristatus* (Non-breeding)
  - Habitat Preference – Reed-bordered lakes, gravel pits, reservoirs and rivers. In the winter, they are also found along the coast.
  - Diet – Mostly fish, some aquatic invertebrates especially in summer.
- Great cormorant, *Phalacrocorax carbo* (Breeding)
  - Habitat Preference – Larger lakes and coastal habitat.
  - Diet – Fish, mostly by diving from surface.
- Mute swan, *Cygnus olor* (Non-breeding)
  - Habitat Preference – Lakes, ponds and rivers.
  - Diet – Aquatic vegetation (to 1m deep), also grazes on land; occasionally takes insects, molluscs, small amphibians.
- Eurasian wigeon, *Anas penelope* (Non-breeding)
  - Habitat Preference – Marsh, lakes, open moor, and on migration also estuaries.

## Appendix A Attributes of European Sites

- Diet – Mostly leaves, shoots, rhizomes, also some seeds.
- Gadwall, *Anas strepera* (Non-breeding)
  - Habitat Preference – Marshes, lakes, and on migration also rivers and estuaries.
  - Diet – Leaves, shoots, mostly while swimming with head under water.
- Eurasian teal, *Anas crecca* (Non-breeding)
  - Habitat Preference – Lakes, marshes, ponds and shallow streams.
  - Diet – Omnivorous, mostly seeds in winter, feeds mostly at night in shallow water.
- Northern shoveler, *Anas clypeata* (Non-breeding)
  - Habitat Preference – Shallow lakes, marsh, reedbed and wet meadow.
  - Diet – Omnivorous, esp. small insects, crustaceans, molluscs, seeds; filters particles with sideways sweeping of bill.
- Common pochard, *Aythya ferina* (Non-breeding)
  - Habitat Preference – Lakes and slow rivers, and on migration also estuaries.
  - Diet – Mostly plant material, also small animals.
- Tufted duck, *Aythya fuligula* (Non-breeding)
  - Habitat Preference – Marshes, lakes, and on migration also rivers, estuaries.
  - Diet – Omnivorous, feeds on mud bottom mostly by diving.
- Common goldeneye, *Bucephala clangula* (Non-breeding)
  - Habitat Preference – Lakes, rivers, and on migration also seacoasts.
  - Diet – Insects, molluscs and crustaceans, mainly by diving.
- Common coot, *Fulica atra* (Non-breeding)
  - Habitat Preference – Lakes, marsh, rivers, and seacoast.

- Diet – Omnivorous, but mostly aquatic plants.

## Abberton Reservoir Ramsar Site (726.2ha)

### Overview of Site and Its Location

A.13 As for Abberton Reservoir SPA above.

### Qualifying Features

A.14 Supports 23787 waterfowl (5 year peak mean 1998/99-2002/2003), including the following internationally important waterbird assemblage:

- Gadwall, *Anas strepera strepera*; Northern shoveler, *Anas clypeata*; Eurasian wigeon, *Anas Penelope*; Mute swan, *Cygnus olor*; Common pochard, *Aythya farina*; Great cormorant, *Phalacrocorax carbo carbo*; Eurasian teal, *Anas crecca*; Tufted duck, *Aythya fuligula*; Common coot, *Fulica atra atra*; Pied avocet, *Recurvirostra avosetta*; Ruff, *Philomachus pugnax*; Black-tailed godwit, *Limosa limosa islandica*; Spotted redshank, *Tringa erythropus*; Common greenshank, *Tringa nebularia*; Common goldeneye, *Bucephala clangula clangula*.

### Conservation Objectives

A.15 None available.



## Pressures and Threats

**A.16** As for Abberton Reservoir SPA above.

Non-qualifying habitats and species upon which the qualifying habitats and/or species depend

**A.17** Similar to Abberton Reservoir SPA (above).

## **Benfleet and Southend Marshes SPA (2251.31ha)**

### Overview of Site and Its Location

**A.18** The Greater Thames Complex consists of the Thames Estuary and Marshes SPA, the Medway Estuary SPA, the Swale SPA and Benfleet and Southend Marshes SPA. The Medway Estuary feeds into and lies on the south side of the outer Thames Estuary in Kent, south-east England. It forms a single tidal system with the Swale and joins the Thames Estuary between the Isle of Grain and the Isle of Sheppey. The Swale is an estuarine area that separates the Isle of Sheppey from the Kent mainland and joins the Medway to the west. Benfleet and Southend Marshes is an estuarine area on the Essex side of the Thames Estuary. These four sites contain a wide diversity of coastal habitats, such as grazing marsh, saltmarsh and mud/sandflat and eelgrass beds that support important numbers of waterbirds throughout the year. Wintering birds that use these estuaries include grebes, geese, ducks and waders whilst in summer breeding birds can be found, such as waders and terns. The area is also important for spring and autumn migration periods.

## Qualifying Features

**A.19** Site regularly supports 34789 waterfowl over winter, including the following waterbird assemblage:

- Dark-bellied brent goose, *Branta bernicla bernicla*.
- Grey plover, *Pluvialis squatarola*.
- Red knot, *Calidris canutus islandica*.
- Dunlin, *Calidris alpina alpina*.

## Conservation Objectives

**A.20** With regard to the SPA and the individual species and/or assemblage of species for which the site has been classified, and subject to natural change.

**A.21** 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; and
- The distribution of the qualifying features within the site.

## Pressures and Threats

### Coastal Squeeze

**A.22** Coastal defences exist along much of the coastline here. Sea level rise is also occurring. It is therefore certain that if circumstances do not change, much of the supporting habitats of the SPA birds will be lost/degraded through processes such as: coastal squeeze; sedimentation rates' inability to keep pace with sea level rise; and reduced exposure (the extent and duration) of mudflats and sandflats.

### Public Access/Disturbance

**A.23** Breeding and overwintering waterbirds are susceptible to human disturbance from a range of land- and water-based activities, including: boating and watersports; walking; bait-digging; fishing, and wildfowling. Some activities such as powerboating, may produce physical disturbance to habitats. Public access, (especially dog walking and recreational boating) was identified as a medium risk during the 2009 EMS risk review project and this activity is still occurring. Moderate levels of disturbance in less sensitive locations may have no significant effect on the numbers of birds using the SIP area but the types, levels and locations of potentially disturbing activities are constantly changing. Managing the changes to minimise the risk of disturbance impacts will require a better understanding of which species and habitats are most susceptible, which types of activity are most disturbing, and which locations and times of year are most sensitive. There is inadequate information to provide appropriate management.

### Invasive Species

**A.24** Non-native invasive species such as sea squirt and pacific oyster are spreading along the Kent coast and could begin to impact on the Swale. Sea

squirt has been found in the Medway, and Pacific oysters are regarded as increasing in the Essex-Southend area. These species threaten habitats due to their ability to smother substrate and other sessile organisms. There is no good understanding of the overall distribution of these species in this site. Assessment is needed in key areas of ports and marinas, where introductions tend to first occur.

### Changes in Species Distributions

**A.25** There is a decline in population size for some of the bird species on some of the SPAs [See reference 39]. These are likely to be influenced by a number of factors which may vary across the four SPAs. Some of these influences are site-based as described in other parts of this Plan and some relate to wider, broad-scale changes such as wintering species distributions and effects from breeding grounds outside the UK. A greater understanding of the relative importance of site-based and wider influences is required in order to identify the potential for further actions that might halt declines, restore populations or identify scenarios where it is thought unlikely that site-based measures will reverse population declines.

### Fisheries: Commercial Marine and Estuarine

**A.26** The extent and impacts of fisheries on private grounds, particularly in the Swale Estuary, needs to be better understood. There are particular concerns regarding the dredging of shellfish within the SPAs which are a food source for the protected birds.

### Invasive Species

**A.27** Freshwater non-native invasive species such as pennywort, crassula, parrots feather etc. can engulf ditches, leading to loss of habitat for diving ducks. Although there are some mechanisms in place to ensure ditch

management, more baseline information is needed, particularly on those species for which ditch management is not the solution.

### **Invasive Species**

**A.28** *Spartina anglica* may be increasing at the expense of other saltmarsh habitats with adverse implications for SPA bird roost areas in Benfleet and Southend Marshes.

### **Vehicles: Illicit**

**A.29** The illicit use of motor vehicles (often bikes) occurs across the area. This can cause disturbance to SPA birds. This activity was identified as a medium risk during the 2009 EMS risk review project and is still occurring. Whilst various mechanisms are in place to prevent the use of vehicles they are clearly not entirely effective.

### **Fisheries: Commercial Marine and Estuarine**

**A.30** Commercial fishing activities categorised as ‘amber or green’ under Defra’s revised approach to commercial fisheries in European Marine Sites require assessment and (where appropriate) management. This assessment will be undertaken by Kent and Essex IFCA. For activities categorised as ‘green’, these assessments should take account of any in-combination effects of amber activities, and/or appropriate plans or projects, in the site.

### **Air Pollution: Risk of Atmospheric Nitrogen Deposition**

**A.31** Nitrogen deposition exceeds site-relevant critical loads.

## Non-qualifying habitats and species upon which the qualifying habitats and/or species depend

- In general, the qualifying bird species of the SPA rely on:
  - The sites ecosystem as a whole (see list of habitats below).
  - Maintenance of populations of species that they feed on (see list of diets below).
  - Off-site habitat, which provide foraging habitat for these species.
  - Open landscape with unobstructed line of sight within nesting, foraging or roosting habitat.
- Dark-bellied brent goose, *Branta bernicla bernicla*
  - Habitat Preference – Tundra, and on migration marshes and estuaries.
  - Diet – Vegetation, especially eel-grass.
- Grey plover, *Pluvialis squatarola*
  - Habitat Preference – Tundra, and on migration pasture and estuaries.
  - Diet – In summer, invertebrates and in winter primarily marine worms, crustaceans and molluscs.
- Red knot, *Calidris canutus islandica*
  - Habitat Preference – Tundra, and on migration coastal habitat.
  - Diet – In summer, insects and plant material, and in winter inter-tidal invertebrates, esp molluscs.
- Dunlin, *Calidris alpina alpina*
  - Habitat Preference – Tundra, moor, heath, and on migration estuaries and coastal habitat.
  - Diet – Insects, snails and worms.

## Benfleet and Southend Marshes Ramsar Site (2251.31ha)

### Overview of Site and Its Location

**A.32** As for Benfleet and Southend Marshes SPA above.

### Qualifying Features

**A.33** Comprise an extensive series of saltmarshes, mudflats, and grassland which support a diverse flora and fauna, including internationally important numbers of wintering waterfowl:

- Dark-bellied brent goose, *Branta bernicla bernicla* (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).

### Conservation Objectives

**A.34** None available.

### Pressures and Threats

**A.35** As for Benfleet and Southend Marshes SPA above.

## Non-qualifying habitats and species upon which the qualifying habitats and/or species depend

**A.36** Similar to Benfleet and Southend Marshes SPA above.

## Blackwater Estuary (Mid-Essex Coast Phase 4) SPA (4395.15ha)

### Overview of Site and Its Location

**A.37** The Essex Estuaries SIP covers the Essex Estuaries SAC and five mid-Essex coast SPAs (Blackwater Estuary, Colne Estuary, Crouch and Roach Estuaries, Dengie and Foulness). The area is a typical, undeveloped, coastal plain estuarine system with associated open coast mudflats and sandbanks. Sub-tidal areas have a rich invertebrate fauna and there are extensive intertidal mudflats and sandflats. Four different saltmarsh features of European importance are represented as well as large areas of grazing marsh. The site is one of the most important areas for overwintering waterbirds in the UK and is of international importance for several breeding bird species.

### Qualifying Features

**A.38** Qualifying Features (Waterbird assemblage):

- Dark-bellied brent goose, *Branta bernicla bernicla* (Non-breeding).
- Common pochard, *Aythya farina* (Breeding).
- Hen harrier, *Circus cyaneus* (Non-breeding).
- Ringed plover, *Charadrius hiaticula* (Breeding).



## Appendix A Attributes of European Sites

- Grey plover, *Pluvialis squatarola* (Non-breeding).
- Dunlin, *Calidris alpina alpina* (Non-breeding).
- Black-tailed godwit, *Limosa limosa islandica* (Non-breeding).
- Little tern, *Sterna albifrons* (Breeding).

### A.39 Additional Qualifying Features Identified by the 2001 UK SPA Review:

- Common shelduck, *Tadorna tadorna* (Non-breeding).
- Pied avocet, *Recurvirostra avosetta* (Non-breeding).
- Ringed plover, *Charadrius hiaticula* (Non-breeding).
- European golden plover, *Pluvialis apricaria* (Non-breeding).
- Ruff, *Philomachus pugna* (Non-breeding).
- Common redshank, *Tringa totanus* (Non-breeding).

## Conservation Objectives

**A.40** With regard to the SPA and the individual species and/or assemblage of species for which the site has been classified, and subject to natural change.

**A.41** 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; and
- The distribution of the qualifying features within the site.

## Pressures and Threats

### Coastal Squeeze

**A.42** Coastal defences along much of the Essex coastline prevent intertidal habitats from shifting landward in response to rising sea levels. As a result, these habitats are being gradually degraded and reduced in extent, with knock-on effects on the waterbirds and other species they support. 'Managed realignment' schemes and additional intervention measures to create new areas of intertidal habitat and reduce erosion rates are being implemented but more will be needed to offset future losses. Grazing marshes in the SIP area are important for waterbirds and are also threatened by sea level rise because most are near or below mean high tide level, currently protected behind seawalls.

### Public Access/Disturbance

**A.43** Breeding and overwintering waterbirds are susceptible to human disturbance from a range of land- and water-based activities – including boating and watersports, walking, bait-digging, fishing and wildfowling – as well as low-flying aircraft. Some activities, such as powerboating, may produce physical disturbance to habitats. Moderate levels of disturbance in less sensitive locations may have no significant effect on the numbers of birds using the SIP area but the types, levels and locations of potentially disturbing activities are constantly changing. Managing the changes to minimise the risk of disturbance impacts will require a better understanding of which species and habitats are most susceptible, which types of activity are most disturbing, and which locations and times of year are most sensitive.

### Fisheries: Commercial Marine and Estuaries

**A.44** Commercial fishing activities categorised as Amber or Green under Defra's revised approach to commercial fisheries in EMSs are being assessed

by Kent and Essex Inshore Fisheries and Conservation Authority (KEIFCA) to determine whether management is required. For activities categorised as Amber and Green these assessments should take account of any relevant in combination effects with other fishing activities. Shellfish dredging over subtidal habitats has been identified as an Amber activity and is considered a high priority for assessment and development of possible management for the site.

### Planning Permission: General

**A.45** Several of the issues affecting the Essex Estuaries and the management of disturbance effects on the sites are related to each other, and addressing them is likely to require an improved overview of the relative sensitivities of different habitats, species and locations to different types of development (perhaps summarised as sensitivity maps and matrices for the SIP area). Difficult issues include:

- (a) Assessing the cumulative effects of numerous, small and often 'non-standard' developments.
- (b) Development outside the SPA/SAC boundaries can have negative impacts, particularly on the estuaries' birds.
- (c) Assessing the indirect, 'knock-on' effects of proposals.
- (d) Pressure to relax planning conditions on existing developments.

### Changes in Species Distributions

**A.46** Declines in the numbers of some of the waterbird species using the Essex Estuaries SIP area may be due to changes in their distributions or population levels at a national or continental scale, possibly linked to climate change. For example, milder winters may be allowing birds to overwinter closer to their

northern breeding grounds, or changes on the breeding grounds may be reducing breeding success. When assessing SPA condition, distinguishing these types of large-scale effect from effects produced by changes within the site itself is important.

### Invasive Species

**A.47** An increase in Pacific oyster *Crassostrea gigas* settlement and colonisation within the European Marine Site (EMS) may result in areas of foreshore being covered in such numbers as to make them difficult to access and utilise as feeding grounds for overwintering birds. The importance of Pacific oysters for the local shellfish industry is recognised, however we would not like to see an overall increase in the extent of foreshore across the EMS populated by Pacific oysters. Other non-native invasive species such as the American whelk *Urosalpinx cinerea* and Slipper limpet *Crepidula fornicata* are known to occupy subtidal muddy habitats, potentially impacting native communities through competition for resources and predation.

### Fisheries: Recreational Marine and Estuarine

**A.48** Recreational bait digging may impact waterbirds by reducing prey availability and creating disturbance in intertidal feeding areas. It could also damage the intertidal mudflats and sandflats and associated sub-features and communities, such as eelgrass beds. The extent of the activity and potential impacts on site features are not currently well understood.

### Fisheries: Commercial Marine and Estuarine

**A.49** Bottom towed fishing gear (i.e. any fishing instrument designed to take sea fisheries resources from the seabed) has been categorised as a 'Red' for the interest features listed, specifically the seagrass beds *Zostera* spp, a sub-feature of the SAC, as part of Defra's revised approach to commercial fisheries

management in European Marine Sites (EMS). Appropriate management measures will be implemented and enforced by Kent and Essex Inshore Fisheries and Conservation Authority (KEIFCA) who have put in place the 'Bottom Towed Fishing Gear Byelaw' within the SAC to prohibit the above fishing gear being used over the majority of known seagrass beds.

### **Fisheries: Commercial Marine and Estuarine**

**A.50** Marine fisheries carried out under private rights, or under management defined in Several or Hybrid Orders, fall outside Defra's revised approach to commercial fisheries management in EMSs. A variety of fishing gears are used in these fisheries (e.g. Hydraulic and non-hydraulic dredging and shore based activities (e.g. shellfish collection)) which may be applying pressure to site features, including abrasion of the seabed, visual disturbance, and habitat structure changes. Potential impacts need to be better understood and assessed with potential management introduced if required.

### **Invasive Species**

**A.51** The invasive Common cord-grass *Spartina anglica* occurs widely within this site, as well as native Small cord-grass *Spartina maritima* in certain locations, and the site is designated for H1320 *Spartina* swards. There is a need to improve understanding of the dynamics of *S.anglica* on the site in order to determine if changes in the species' distribution adversely affect other species and habitats, including feeding and roosting areas of SPA bird species.

### **Air Pollution: Risk of Atmospheric Nitrogen Deposition**

**A.52** Atmospheric nitrogen deposition exceeds the relevant critical loads for coastal dune habitats used by breeding terns and hence there is a risk of harmful effects. However, on the Essex estuaries declines in the numbers of

breeding terns appear to be due mainly to erosion of a man-made cockle-shingle bank (at Foulness) and to disturbance (elsewhere), rather than to over-vegetation of breeding areas caused by nitrogen deposition.

### Non-qualifying habitats and species upon which the qualifying habitats and/or species depend

- In general, the qualifying bird species of the SPA rely on:
  - The sites ecosystem as a whole (see list of habitats below).
  - Maintenance of populations of species that they feed on (see list of diets below).
  - Off-site habitat, which provide foraging habitat for these species.
  - Open landscape with unobstructed line of sight within nesting, foraging or roosting habitat.
- Dark-bellied brent goose, *Branta bernicla bernicla* (Non-breeding)
  - Habitat Preference – Tundra, and on migration marshes and estuaries.
  - Diet – Vegetation, especially eel-grass.
- Common pochard, *Aythya farina* (Breeding)
  - Habitat Preference – Open lakes and gravel pits in the summer and large lakes and estuaries during the winter.
  - Diet – Plants and seeds, snails, small fish and insects.
- Hen harrier, *Circus cyaneus* (Non-breeding)
  - Habitat Preference – Moor, marsh, steppe and fields.
  - Diet – Mainly small birds and mammals.
- Ringed plover, *Charadrius hiaticula* (Breeding)
  - Habitat Preference – Sandy areas with low vegetation, and on migration estuaries.

## Appendix A Attributes of European Sites

- Diet – In summer, invertebrates and in winter primarily marine worms, crustaceans and molluscs.
- Grey plover, *Pluvialis squatarola* (Non-breeding)
  - Habitat Preference – Tundra, and on migration pasture and estuaries.
  - Diet – In summer, invertebrates and in winter primarily marine worms, crustaceans and molluscs.
- Dunlin, *Calidris alpina alpina* (Non-breeding)
  - Habitat Preference – Tundra, moor, heath, and on migration estuaries and coastal habitat.
  - Diet – Insects, snails and worms.
- Black-tailed godwit, *Limosa limosa islandica* (Non-breeding)
  - Habitat Preference – Marshy grassland and steppe, and on migration mudflats.
  - Diet – Insects, worms and snails, but also some plants, beetles, grasshoppers and other small insects during the breeding season.
- Little tern, *Sterna albifrons* (Breeding)
  - Habitat Preference – Seacoasts, rivers and lakes.
  - Diet – Small fish and invertebrates.
- The waterfowl assemblage relies on a variety of habitats to support population numbers, including intertidal mudflats and sandflats, boulder and cobble shores, saltmarsh, seagrass beds and shallow coastal waters.

## Blackwater Estuary (Mid-Essex Coast Phase 4) Ramsar Site (4395.15ha)

### Overview of Site and Its Location

**A.53** As for Blackwater Estuary (Mid-Essex Coast Phase 4) SPA above.

### Qualifying Features

**A.54** Represents 70% of the saltmarsh habitat in Essex and 7% of the total area of saltmarsh in Britain.

**A.55** Invertebrate fauna includes at least 16 British Red Data Book species: water beetle *Paracymus aeneus*; damselfly *Lestes dryas*; flies *Aedes flavescens*, *Erioptera bivittata*, *Hybomitra expollicata*; spiders *Heliophanus auratus* and *Trichopterna cito*; beetles *Baris scolopacea*, *Philonthus punctus*, *Graptodytes bilineatus* and *Malachius vulneratus*; flies *Campsicemus magius*, *Myopites eximia*; moths *Idaea ochrata* and *Malacosoma castrensis*; spider *Euophrys*.

**A.56** Supports a full and representative sequences of saltmarsh plant communities covering the range of variation in Britain.

**A.57** Supports the following internationally important wildfowl assemblage:

- Dark-bellied brent goose, *Branta bernicla bernicla*; Grey plover, *Pluvialis squatarola*; Dunlin, *Calidris alpina alpina*; Black-tailed godwit, *Limosa limosa islandica*; European golden plover, *Pluvialis apricaria apricaria*; Common redshank, *Tringa totanus tetanus*.



## Conservation Objectives

A.58 None available.

## Pressures and Threats

A.59 As for Blackwater Estuary (Mid-Essex Coast Phase 4) SPA above.

## Non-qualifying habitats and species upon which the qualifying habitats and/or species depend

- Saltmarsh Habitat
  - Saltmarsh habitat is reliant a range of coastal factors, in particular sedimentary and tidal processes which influence the pattern and development of vegetation. These factors influence the complex interdependent intertidal, subtidal and terrestrial habitats present along the coast.
- Invertebrates
  - These species are reliant on the saltmarsh habitat and characteristic flora and fauna that are present within the European site. Key sources of food range from flowering plants, organic matter and other invertebrate species.
- Birds
  - Similar to Blackwater Estuary (Mid-Essex Coast Phase 4) SPA above.

## Colne Estuary (Mid-Essex Coast Phase 2) SPA (2701.43ha)

### Overview of Site and Its Location

**A.60** The Essex Estuaries SIP covers the Essex Estuaries SAC and five mid-Essex coast SPAs (Blackwater Estuary, Colne Estuary, Crouch and Roach Estuaries, Dengie and Foulness). The area is a typical, undeveloped, coastal plain estuarine system with associated open coast mudflats and sandbanks. Sub-tidal areas have a rich invertebrate fauna and there are extensive intertidal mudflats and sandflats. Four different saltmarsh features of European importance are represented as well as large areas of grazing marsh. The site is one of the most important areas for overwintering waterbirds in the UK and is of international importance for several breeding bird species.

### Qualifying Features

**A.61** Annex I populations of the following species:

- During the breeding season: Little tern, *Sterna albifrons*.
- Over winter: Avocet, *Recurvirostra avosetta*; Golden plover, *Pluvialis apricaria*; Hen harrier, *Circus cyaneus*.

**A.62** This site also qualifies under Article 4.2 of the Directive (79/409/EEC) by supporting populations of European importance of the following migratory species:

- Over winter: Dark-bellied brent goose, *Branta bernicla bernicla*; Redshank, *Tringa totanus*.

**A.63** The area qualifies under Article 4.2 of the Directive (79/409/EEC) by regularly supporting at least 20,000 waterfowl.

## Conservation Objectives

**A.64** With regard to the SPA and the individual species and/or assemblage of species for which the site has been classified, and subject to natural change.

**A.65** 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; and
- The distribution of the qualifying features within the site.

## Pressures and Threats

### Coastal Squeeze

**A.66** Coastal defences along much of the Essex coastline prevent intertidal habitats from shifting landward in response to rising sea levels. As a result, these habitats are being gradually degraded and reduced in extent, with knock-on effects on the waterbirds and other species they support. 'Managed realignment' schemes and additional intervention measures to create new areas of intertidal habitat and reduce erosion rates are being implemented but more will be needed to offset future losses. Grazing marshes in the SIP area are important for waterbirds and are also threatened by sea level rise because most are near or below mean high tide level, currently protected behind seawalls.

## Public Access/Disturbance

**A.67** Breeding and overwintering waterbirds are susceptible to human disturbance from a range of land- and water-based activities – including boating and watersports, walking, bait-digging, fishing and wildfowling – as well as low-flying aircraft. Some activities, such as powerboating, may produce physical disturbance to habitats. Moderate levels of disturbance in less sensitive locations may have no significant effect on the numbers of birds using the SIP area but the types, levels and locations of potentially disturbing activities are constantly changing. Managing the changes to minimise the risk of disturbance impacts will require a better understanding of which species and habitats are most susceptible, which types of activity are most disturbing, and which locations and times of year are most sensitive.

## Fisheries: Commercial Marine and Estuaries

**A.68** Commercial fishing activities categorised as Amber or Green under Defra's revised approach to commercial fisheries in EMSs are being assessed by Kent and Essex Inshore Fisheries and Conservation Authority (KEIFCA) to determine whether management is required. For activities categorised as Amber and Green these assessments should take account of any relevant in combination effects with other fishing activities. Shellfish dredging over subtidal habitats has been identified as an Amber activity and is considered a high priority for assessment and development of possible management for the site.

## Planning Permission: General

**A.69** Several of the issues affecting the Essex Estuaries and the management of disturbance effects on the sites are related to each other, and addressing them is likely to require an improved overview of the relative sensitivities of different habitats, species and locations to different types of development (perhaps summarised as sensitivity maps and matrices for the SIP area). Difficult issues include:

## Appendix A Attributes of European Sites

- (a) Assessing the cumulative effects of numerous, small and often 'non-standard' developments.
- (b) Development outside the SPA/SAC boundaries can have negative impacts, particularly on the estuaries' birds.
- (c) Assessing the indirect, 'knock-on' effects of proposals.
- (d) Pressure to relax planning conditions on existing developments.

## Changes in Species Distributions

**A.70** Declines in the numbers of some of the waterbird species using the Essex Estuaries SIP area may be due to changes in their distributions or population levels at a national or continental scale, possibly linked to climate change. For example, milder winters may be allowing birds to overwinter closer to their northern breeding grounds, or changes on the breeding grounds may be reducing breeding success. When assessing SPA condition, distinguishing these types of large-scale effect from effects produced by changes within the site itself is important.

## Invasive Species

**A.71** An increase in Pacific oyster *Crassostrea gigas* settlement and colonisation within the European Marine Site (EMS) may result in areas of foreshore being covered in such numbers as to make them difficult to access and utilise as feeding grounds for overwintering birds. The importance of Pacific oysters for the local shellfish industry is recognised, however we would not like to see an overall increase in the extent of foreshore across the EMS populated by Pacific oysters. Other non-native invasive species such as the American whelk *Urosalpinx cinerea* and Slipper limpet *Crepidula fornicata* are known to occupy subtidal muddy habitats, potentially impacting native communities through competition for resources and predation.

## Fisheries: Recreational Marine and Estuarine

**A.72** Recreational bait digging may impact waterbirds by reducing prey availability and creating disturbance in intertidal feeding areas. It could also damage the intertidal mudflats and sandflats and associated sub-features and communities, such as eelgrass beds. The extent of the activity and potential impacts on site features are not currently well understood.

## Fisheries: Commercial Marine and Estuarine

**A.73** Bottom towed fishing gear (i.e. any fishing instrument designed to take sea fisheries resources from the seabed) has been categorised as a 'Red' for the interest features listed, specifically the seagrass beds *Zostera* spp, a sub-feature of the SAC, as part of Defra's revised approach to commercial fisheries management in European Marine Sites (EMS). Appropriate management measures will be implemented and enforced by Kent and Essex Inshore Fisheries and Conservation Authority (KEIFCA) who have put in place the 'Bottom Towed Fishing Gear Byelaw' within the SAC to prohibit the above fishing gear being used over the majority of known seagrass beds.

## Fisheries: Commercial Marine and Estuarine

**A.74** Marine fisheries carried out under private rights, or under management defined in Several or Hybrid Orders, fall outside Defra's revised approach to commercial fisheries management in EMSs. A variety of fishing gears are used in these fisheries (e.g. Hydraulic and non-hydraulic dredging and shore based activities (e.g. shellfish collection)) which may be applying pressure to site features, including abrasion of the seabed, visual disturbance, and habitat structure changes. Potential impacts need to be better understood and assessed with potential management introduced if required.

## Invasive Species

**A.75** The invasive Common cord-grass *Spartina anglica* occurs widely within this site, as well as native Small cord-grass *Spartina maritima* in certain locations, and the site is designated for H1320 *Spartina* swards. There is a need to improve understanding of the dynamics of *S.anglica* on the site in order to determine if changes in the species' distribution adversely affect other species and habitats, including feeding and roosting areas of SPA bird species.

## Air Pollution: Risk of Atmospheric Nitrogen Deposition

**A.76** Atmospheric nitrogen deposition exceeds the relevant critical loads for coastal dune habitats used by breeding terns and hence there is a risk of harmful effects. However, on the Essex estuaries declines in the numbers of breeding terns appear to be due mainly to erosion of a man-made cockle-shingle bank (at Foulness) and to disturbance (elsewhere), rather than to over-vegetation of breeding areas caused by nitrogen deposition.

## Non-qualifying habitats and species upon which the qualifying habitats and/or species depend

- In general, the qualifying bird species of the SPA rely on:
  - The sites ecosystem as a whole (see list of habitats below).
  - Maintenance of populations of species that they feed on (see list of diets below).
  - Off-site habitat, which provide foraging habitat for these species.
  - Open landscape with unobstructed line of sight within nesting, foraging or roosting habitat.
- Dark-bellied brent goose, *Branta bernicla bernicla* (Non-breeding)

## Appendix A Attributes of European Sites

- Habitat Preference – Tundra, and on migration marshes and estuaries.
- Diet – Vegetation, especially eel-grass.
- Common pochard, *Aythya ferina* (Breeding)
  - Habitat Preference – Lakes and slow rivers, and on migration also estuaries.
  - Diet – Mostly plant material, also small animals.
- Hen harrier, *Circus cyaneus* (Non-breeding)
  - Habitat Preference – Moor, marsh, steppe and fields.
  - Diet – Mainly small birds and mammals.
- Ringed plover, *Charadrius hiaticula* (Breeding)
  - Habitat Preference – Sandy areas with low vegetation, and on migration estuaries.
  - Diet – In summer, invertebrates and in winter primarily marine worms, crustaceans and molluscs.
- Common redshank, *Tringa tetanus* (Non-breeding)
  - Habitat Preference – Rivers, wet grassland, moors and estuaries.
  - Diet – Invertebrates, especially earthworms, crane-fly larvae (inland) crustaceans, molluscs, marine worms (estuaries).
- Little tern, *Sterna albifrons* (Breeding)
  - Habitat Preference – Seacoasts, rivers and lakes.
  - Diet – Small fish and invertebrates.



## Colne Estuary (Mid-Essex Coast Phase 2) Ramsar Site (2701.43ha)

### Overview of Site and Its Location

**A.77** As for Colne Estuary (Mid-Essex Coast Phase 2) SPA above.

### Qualifying Features

**A.78** Ramsar criterion 1: The site is important due to the extent and diversity of saltmarsh present.

**A.79** Ramsar criterion 2: The site supports 12 species of nationally scarce plants and at least 38 British Red Data Book invertebrate species.

**A.80** Ramsar criterion 3: This site supports a full and representative sequences of saltmarsh plant communities covering the range of variation in Britain.

**A.81** Ramsar criterion 5: Assemblages of international importance:

- Species with peak counts in winter: 32,041 waterfowl (5 year peak mean 1998/99-2002/2003).

**A.82** Ramsar criterion 6: Species/populations occurring at levels of international importance. Qualifying Species/populations (as identified at designation):

- Species with peak counts in winter: Dark-bellied brent goose, *Branta bernicla bernicla*; Common redshank, *Tringa totanus tetanus*.

**A.83** Species/populations identified subsequent to designation for possible future consideration under criterion 6:

- Species with peak counts in winter: Black-tailed godwit, *Limosa limosa islandica*.

## Conservation Objectives

**A.84** None available.

## Pressures and Threats

**A.85** As for Colne Estuary (Mid-Essex Coast Phase 2) SPA above.

## Non-qualifying habitats and species upon which the qualifying habitats and/or species depend

- Habitat
  - Saltmarsh habitat is reliant a range of coastal factors, in particular sedimentary and tidal processes which influence the pattern and development of vegetation. These factors influence the complex interdependent intertidal, subtidal and terrestrial habitats present along the coast.
- Plants
  - Plant communities are reliant on the coastal habitats within the Ramsar site. These habitats are dependent on a range of coastal factors and processes, including salinity, sedimentation, sea level, turbidity and elevation.
- Invertebrates
  - These species are reliant on the saltmarsh habitat and characteristic flora and fauna that are present within the European site. Key sources

of food range from flowering plants, organic matter and other invertebrate species.

### ■ Birds

- Similar to Colne Estuary (Mid-Essex Coast Phase 2) SPA above. Consideration also needs to be given to black-tailed godwit, for which this Ramsar site is designated for.
- Black-tailed godwit, *Limosa limosa islandica*
  - Habitat Preference – Marshy grassland and steppe, and on migration mudflats.
  - Diet – Insects, worms and snails, but also some plants, beetles, grasshoppers and other small insects during the breeding season.

## Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA (1735.58ha)

### Overview of Site and Its Location

**A.86** The Essex Estuaries SIP covers the Essex Estuaries SAC and five mid-Essex coast SPAs (Blackwater Estuary, Colne Estuary, Crouch and Roach Estuaries, Dengie and Foulness). The area is a typical, undeveloped, coastal plain estuarine system with associated open coast mudflats and sandbanks. Sub-tidal areas have a rich invertebrate fauna and there are extensive intertidal mudflats and sandflats. Four different saltmarsh features of European importance are represented as well as large areas of grazing marsh. The site is one of the most important areas for overwintering waterbirds in the UK and is of international importance for several breeding bird species.

## Qualifying Features

**A.87** Site regularly supports over winter:

- Dark-bellied brent goose, *Branta bernicla bernicla*; Hen harrier, *Circus cyaneus*.

## Conservation Objectives

**A.88** With regard to the SPA and the individual species and/or assemblage of species for which the site has been classified, and subject to natural change.

**A.89** 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; and
- The distribution of the qualifying features within the site.

## Pressures and Threats

### Coastal Squeeze

**A.90** Coastal defences along much of the Essex coastline prevent intertidal habitats from shifting landward in response to rising sea levels. As a result, these habitats are being gradually degraded and reduced in extent, with knock-

on effects on the waterbirds and other species they support. 'Managed realignment' schemes and additional intervention measures to create new areas of intertidal habitat and reduce erosion rates are being implemented but more will be needed to offset future losses. Grazing marshes in the SIP area are important for waterbirds and are also threatened by sea level rise because most are near or below mean high tide level, currently protected behind seawalls.

### Public Access/Disturbance

**A.91** Breeding and overwintering waterbirds are susceptible to human disturbance from a range of land- and water-based activities – including boating and watersports, walking, bait-digging, fishing and wildfowling – as well as low-flying aircraft. Some activities, such as powerboating, may produce physical disturbance to habitats. Moderate levels of disturbance in less sensitive locations may have no significant effect on the numbers of birds using the SIP area but the types, levels and locations of potentially disturbing activities are constantly changing. Managing the changes to minimise the risk of disturbance impacts will require a better understanding of which species and habitats are most susceptible, which types of activity are most disturbing, and which locations and times of year are most sensitive.

### Fisheries: Commercial Marine and Estuaries

**A.92** Commercial fishing activities categorised as Amber or Green under Defra's revised approach to commercial fisheries in EMSs are being assessed by Kent and Essex Inshore Fisheries and Conservation Authority (KEIFCA) to determine whether management is required. For activities categorised as Amber and Green these assessments should take account of any relevant in combination effects with other fishing activities. Shellfish dredging over subtidal habitats has been identified as an Amber activity and is considered a high priority for assessment and development of possible management for the site.

## Planning Permission: General

**A.93** Several of the issues affecting the Essex Estuaries and the management of disturbance effects on the sites are related to each other, and addressing them is likely to require an improved overview of the relative sensitivities of different habitats, species and locations to different types of development (perhaps summarised as sensitivity maps and matrices for the SIP area). Difficult issues include:

- (a) Assessing the cumulative effects of numerous, small and often 'non-standard' developments.
- (b) Development outside the SPA/SAC boundaries can have negative impacts, particularly on the estuaries' birds.
- (c) Assessing the indirect, 'knock-on' effects of proposals.
- (d) Pressure to relax planning conditions on existing developments.

## Changes in Species Distributions

**A.94** Declines in the numbers of some of the waterbird species using the Essex Estuaries SIP area may be due to changes in their distributions or population levels at a national or continental scale, possibly linked to climate change. For example, milder winters may be allowing birds to overwinter closer to their northern breeding grounds, or changes on the breeding grounds may be reducing breeding success. When assessing SPA condition, distinguishing these types of large-scale effect from effects produced by changes within the site itself is important.

## Invasive Species

**A.95** An increase in Pacific oyster *Crassostrea gigas* settlement and colonisation within the European Marine Site (EMS) may result in areas of foreshore being covered in such numbers as to make them difficult to access and utilise as feeding grounds for overwintering birds. The importance of Pacific oysters for the local shellfish industry is recognised, however we would not like to see an overall increase in the extent of foreshore across the EMS populated by Pacific oysters. Other non-native invasive species such as the American whelk *Urosalpinx cinerea* and Slipper limpet *Crepidula fornicata* are known to occupy subtidal muddy habitats, potentially impacting native communities through competition for resources and predation.

## Fisheries: Recreational Marine and Estuarine

**A.96** Recreational bait digging may impact waterbirds by reducing prey availability and creating disturbance in intertidal feeding areas. It could also damage the intertidal mudflats and sandflats and associated sub-features and communities, such as eelgrass beds. The extent of the activity and potential impacts on site features are not currently well understood.

## Fisheries: Commercial Marine and Estuarine

**A.97** Bottom towed fishing gear (i.e. any fishing instrument designed to take sea fisheries resources from the seabed) has been categorised as a 'Red' for the interest features listed, specifically the seagrass beds *Zostera* spp, a sub-feature of the SAC, as part of Defra's revised approach to commercial fisheries management in European Marine Sites (EMS). Appropriate management measures will be implemented and enforced by Kent and Essex Inshore Fisheries and Conservation Authority (KEIFCA) who have put in place the 'Bottom Towed Fishing Gear Byelaw' within the SAC to prohibit the above fishing gear being used over the majority of known seagrass beds.

## Fisheries: Commercial Marine and Estuarine

**A.98** Marine fisheries carried out under private rights, or under management defined in Several or Hybrid Orders, fall outside Defra's revised approach to commercial fisheries management in EMSs. A variety of fishing gears are used in these fisheries (e.g. Hydraulic and non-hydraulic dredging and shore based activities (e.g. shellfish collection)) which may be applying pressure to site features, including abrasion of the seabed, visual disturbance, and habitat structure changes. Potential impacts need to be better understood and assessed with potential management introduced if required.

## Invasive Species

**A.99** The invasive Common cord-grass *Spartina anglica* occurs widely within this site, as well as native Small cord-grass *Spartina maritima* in certain locations, and the site is designated for H1320 *Spartina* swards. There is a need to improve understanding of the dynamics of *S.anglica* on the site in order to determine if changes in the species' distribution adversely affect other species and habitats, including feeding and roosting areas of SPA bird species.

## Air Pollution: Risk of Atmospheric Nitrogen Deposition

**A.100** Atmospheric nitrogen deposition exceeds the relevant critical loads for coastal dune habitats used by breeding terns and hence there is a risk of harmful effects. However, on the Essex estuaries declines in the numbers of breeding terns appear to be due mainly to erosion of a man-made cockle-shingle bank (at Foulness) and to disturbance (elsewhere), rather than to over-vegetation of breeding areas caused by nitrogen deposition.



## Non-qualifying habitats and species upon which the qualifying habitats and/or species depend

- In general, the qualifying bird species of the SPA rely on:
  - The sites ecosystem as a whole (see list of habitats below).
  - Maintenance of populations of species that they feed on (see list of diets below).
  - Off-site habitat, which provide foraging habitat for these species.
  - Open landscape with unobstructed line of sight within nesting, foraging or roosting habitat.
- Dark-bellied brent goose, *Branta bernicla bernicla* (Non-breeding)
  - Habitat Preference – Tundra, and on migration marshes and estuaries.
  - Diet – Vegetation, especially eel-grass.
- Hen harrier, *Circus cyaneus* (Non-breeding)
  - Habitat Preference – Moor, marsh, steppe and fields.
  - Diet – Mainly small birds and mammals.
- Waterbird Assemblage
  - Many of the assemblage species, including the majority of the waders, feed mainly or exclusively on exposed intertidal sediments and saltmarsh at low tide and congregate to roost at high tide on higher areas of saltmarsh or sometimes on adjacent grazing marshes.
  - Other habitats of importance for assemblage species include, along the Crouch, mildly brackish lagoons at Saltcoats and Lower Raypits, fleets within grazing marshes at Marsh Farm and Blue House Farm and, north of the Roach, a fresh water reservoir adjacent to Stannetts Creek.

## Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) Ramsar Site (1735.58ha)

### Overview of Site and Its Location

**A.101** As for Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA above.

### Qualifying Features

**A.102** Supports an appreciable assemblage of rare, vulnerable or endangered including 13 nationally scarce plant species:

- Slender hare's ear, *Bupleurum tenuissimum*; divided sedge, *Carex divisa*; sea barley, *Hordeum marinum*; golden-samphire, *Inula crithmoides*; laxflowered sea-lavender, *Limonium humile*; curved hard-grass, *Parapholis incurve*; Borrer's saltmarsh grass, *Puccinellia fasciculata*; stiff saltmarsh grass, *Puccinellia rupestris*; spiral tasselweed, *Ruppia cirrhosa*; one-flowered glasswort, *Salicornia pusilla*; small cord-grass, *Spartina maritime*; shrubby seablite, *Suaeda vera*; sea clover, *Trifolium squamosum*.

**A.103** Several important invertebrate species also present including:

- Scarce emerald damselfly, *Lestes dryas*; the shorefly, *Parydroptera discomyzina*; the rare soldier fly, *Stratiomys singularior*; the large horsefly, *Hybomitra expollicata*; beetles, *Graptodytes bilineatus*, *Malachius vulneratus*; the ground lackey moth, *Malacosoma castrensis* and *Eucosoma catoprana*.

**A.104** Also supports the following internationally important waterbird assemblage:

- Dark-bellied brent goose, *Branta bernicla* Bernicla.

## Conservation Objectives

**A.105** None available.

## Pressures and Threats

**A.106** As for Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA above.

## Non-qualifying habitats and species upon which the qualifying habitats and/or species depend

- Plants
  - Plant communities are reliant on the coastal habitats within the Ramsar site. These habitats are dependent on a range of coastal factors and processes, including salinity, sedimentation, sea level, turbidity and elevation.
- Invertebrates
  - These species are reliant on the coastal habitat and characteristic flora and fauna that are present within the European site. Key sources of food range from flowering plants, organic matter and other invertebrate species.
- Birds
  - Similar to Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA above.

## Essex Estuaries SAC (46140.82ha)

### Overview of Site and Its Location

**A.107** The Essex Estuaries SIP covers the Essex Estuaries SAC and five mid-Essex coast SPAs (Blackwater Estuary, Colne Estuary, Crouch and Roach Estuaries, Dengie and Foulness). The area is a typical, undeveloped, coastal plain estuarine system with associated open coast mudflats and sandbanks. Sub-tidal areas have a rich invertebrate fauna and there are extensive intertidal mudflats and sandflats. Four different saltmarsh features of European importance are represented as well as large areas of grazing marsh. The site is one of the most important areas for overwintering waterbirds in the UK and is of international importance for several breeding bird species.

### Qualifying Features

**A.108** Annex 1 habitats that are a primary reason for selection of this site:

- Estuaries.
- Mudflats and sandflats not covered by seawater at low tide.
- Salicornia and other animals colonising mud and sand.
- Spartina swards (*Spartinion maritimae*).
- Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*).
- Mediterranean and thermo-Atlantic halophilous scrubs.

**A.109** Annex 1 habitats present as a qualifying feature:

- Sandbanks which are slightly covered by seawater all the time.

## Conservation Objectives

**A.110** With regard to the SAC and the natural habitats and/or species for which the site has been designated, and subject to natural change; 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.

## Pressures and Threats

### Coastal Squeeze

**A.111** Coastal defences along much of the Essex coastline prevent intertidal habitats from shifting landward in response to rising sea levels. As a result, these habitats are being gradually degraded and reduced in extent, with knock-on effects on the waterbirds and other species they support. 'Managed realignment' schemes and additional intervention measures to create new areas of intertidal habitat and reduce erosion rates are being implemented but more will be needed to offset future losses. Grazing marshes in the SIP area are important for waterbirds and are also threatened by sea level rise because most are near or below mean high tide level, currently protected behind seawalls.

### Public Access/Disturbance

**A.112** Breeding and overwintering waterbirds are susceptible to human disturbance from a range of land- and water-based activities – including boating

and watersports, walking, bait-digging, fishing and wildfowling – as well as low-flying aircraft. Some activities, such as powerboating, may produce physical disturbance to habitats. Moderate levels of disturbance in less sensitive locations may have no significant effect on the numbers of birds using the SIP area but the types, levels and locations of potentially disturbing activities are constantly changing. Managing the changes to minimise the risk of disturbance impacts will require a better understanding of which species and habitats are most susceptible, which types of activity are most disturbing, and which locations and times of year are most sensitive.

### Fisheries: Commercial Marine and Estuaries

**A.113** Commercial fishing activities categorised as Amber or Green under Defra's revised approach to commercial fisheries in EMSs are being assessed by Kent and Essex Inshore Fisheries and Conservation Authority (KEIFCA) to determine whether management is required. For activities categorised as Amber and Green these assessments should take account of any relevant in combination effects with other fishing activities. Shellfish dredging over subtidal habitats has been identified as an Amber activity and is considered a high priority for assessment and development of possible management for the site.

### Planning Permission: General

**A.114** Several of the issues affecting the Essex Estuaries and the management of disturbance effects on the sites are related to each other, and addressing them is likely to require an improved overview of the relative sensitivities of different habitats, species and locations to different types of development (perhaps summarised as sensitivity maps and matrices for the SIP area). Difficult issues include:

- (a) Assessing the cumulative effects of numerous, small and often 'non-standard' developments.

## Appendix A Attributes of European Sites

(b) Development outside the SPA/SAC boundaries can have negative impacts, particularly on the estuaries' birds.

(c) Assessing the indirect, 'knock-on' effects of proposals.

(d) Pressure to relax planning conditions on existing developments.

### Changes in Species Distributions

**A.115** Declines in the numbers of some of the waterbird species using the Essex Estuaries SIP area may be due to changes in their distributions or population levels at a national or continental scale, possibly linked to climate change. For example, milder winters may be allowing birds to overwinter closer to their northern breeding grounds, or changes on the breeding grounds may be reducing breeding success. When assessing SPA condition, distinguishing these types of large-scale effect from effects produced by changes within the site itself is important.

### Invasive Species

**A.116** An increase in Pacific oyster *Crassostrea gigas* settlement and colonisation within the European Marine Site (EMS) may result in areas of foreshore being covered in such numbers as to make them difficult to access and utilise as feeding grounds for overwintering birds. The importance of Pacific oysters for the local shellfish industry is recognised, however we would not like to see an overall increase in the extent of foreshore across the EMS populated by Pacific oysters. Other non-native invasive species such as the American whelk *Urosalpinx cinerea* and Slipper limpet *Crepidula fornicata* are known to occupy subtidal muddy habitats, potentially impacting native communities through competition for resources and predation.

## Fisheries: Recreational Marine and Estuarine

**A.117** Recreational bait digging may impact waterbirds by reducing prey availability and creating disturbance in intertidal feeding areas. It could also damage the intertidal mudflats and sandflats and associated sub-features and communities, such as eelgrass beds. The extent of the activity and potential impacts on site features are not currently well understood.

## Fisheries: Commercial Marine and Estuarine

**A.118** Bottom towed fishing gear (i.e. any fishing instrument designed to take sea fisheries resources from the seabed) has been categorised as a 'Red' for the interest features listed, specifically the seagrass beds *Zostera* spp, a sub-feature of the SAC, as part of Defra's revised approach to commercial fisheries management in European Marine Sites (EMS). Appropriate management measures will be implemented and enforced by Kent and Essex Inshore Fisheries and Conservation Authority (KEIFCA) who have put in place the 'Bottom Towed Fishing Gear Byelaw' within the SAC to prohibit the above fishing gear being used over the majority of known seagrass beds.

## Fisheries: Commercial Marine and Estuarine

**A.119** Marine fisheries carried out under private rights, or under management defined in Several or Hybrid Orders, fall outside Defra's revised approach to commercial fisheries management in EMSs. A variety of fishing gears are used in these fisheries (e.g. Hydraulic and non hydraulic dredging and shore based activities (e.g. shellfish collection)) which may be applying pressure to site features, including abrasion of the seabed, visual disturbance, and habitat structure changes. Potential impacts need to be better understood and assessed with potential management introduced if required.



## Invasive Species

**A.120** The invasive Common cord-grass *Spartina anglica* occurs widely within this site, as well as native Small cord-grass *Spartina maritima* in certain locations, and the site is designated for H1320 *Spartina* swards. There is a need to improve understanding of the dynamics of *S.anglica* on the site in order to determine if changes in the species' distribution adversely affect other species and habitats, including feeding and roosting areas of SPA bird species.

## Air Pollution: Risk of Atmospheric Nitrogen Deposition

**A.121** Atmospheric nitrogen deposition exceeds the relevant critical loads for coastal dune habitats used by breeding terns and hence there is a risk of harmful effects. However, on the Essex estuaries declines in the numbers of breeding terns appear to be due mainly to erosion of a man-made cockle-shingle bank (at Foulness) and to disturbance (elsewhere), rather than to over-vegetation of breeding areas caused by nitrogen deposition.

## Non-qualifying habitats and species upon which the qualifying habitats and/or species depend

- Habitat
  - The qualifying habitats of the SAC are reliant a range of coastal factors, including salinity, sedimentation, tide, sea level, turbidity and elevation, which influence the interdependent intertidal, subtidal and terrestrial habitats. These factors influence the complex interdependent intertidal, subtidal and terrestrial habitats present along the coast.
- Additional factors are provided below for each habitat (where relevant).
  - Sandbanks which are slightly covered by sea water all the time.

- Reef-building species such as *Sabellaria spinulosa* help to stabilise the sediment, allowing the colonisation of sessile animals.

# Medway Estuary and Marshes SPA (4684.36)

## Overview of Site and Its Location

**A.122** The Greater Thames Complex consists of the Thames Estuary and Marshes SPA, the Medway Estuary SPA, the Swale SPA and Benfleet and Southend Marshes SPA. The Medway Estuary feeds into and lies on the south side of the outer Thames Estuary in Kent, south-east England. It forms a single tidal system with the Swale and joins the Thames Estuary between the Isle of Grain and the Isle of Sheppey. The Swale is an estuarine area that separates the Isle of Sheppey from the Kent mainland and joins the Medway to the west. Benfleet and Southend Marshes is an estuarine area on the Essex side of the Thames Estuary. These four sites contain a wide diversity of coastal habitats, such as grazing marsh, saltmarsh and mud/sandflat and eelgrass beds that support important numbers of waterbirds throughout the year. Wintering birds that use these estuaries include grebes, geese, ducks and waders whilst in summer breeding birds can be found, such as waders and terns. The area is also important for spring and autumn migration periods.

## Qualifying Features

**A.123** Supports the following Waterbird assemblage/breeding bird assemblage:

- 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*

## Appendix A Attributes of European Sites

squatarola (Non-breeding); Red knot, *Calidris canutus* (Non-breeding); Dunlin, *Calidris alpina alpina* (Non-breeding); Common redshank, *Tringa tetanus* (Non-breeding); Little tern, *Sterna albifrons* (Breeding).

### A.124 Additional Qualifying Features Identified by the 2001 UK SPA Review:

- Black-tailed godwit, *Limosa limosa islandica* (Non-breeding).

## Conservation Objectives

**A.125** With regard to the SPA and the individual species and/or assemblage of species for which the site has been classified, and subject to natural change.

**A.126** 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; and
- The distribution of the qualifying features within the site.

## Pressures and Threats

### Coastal Squeeze

**A.127** Coastal defences exist along much of the coastline here. Sea level rise is also occurring. It is therefore certain that if circumstances do not change, much of the supporting habitats of the SPA birds will be lost/degraded through

processes such as: coastal squeeze; sedimentation rates' inability to keep pace with sea level rise; and reduced exposure (the extent and duration) of mudflats and sandflats.

### Public Access/Disturbance

**A.128** Breeding and overwintering waterbirds are susceptible to human disturbance from a range of land- and water-based activities, including: boating and watersports; walking; bait-digging; fishing, and wildfowling. Some activities such as powerboating, may produce physical disturbance to habitats. Public access, (especially dog walking and recreational boating) was identified as a medium risk during the 2009 EMS risk review project and this activity is still occurring. Moderate levels of disturbance in less sensitive locations may have no significant effect on the numbers of birds using the SIP area but the types, levels and locations of potentially disturbing activities are constantly changing. Managing the changes to minimise the risk of disturbance impacts will require a better understanding of which species and habitats are most susceptible, which types of activity are most disturbing, and which locations and times of year are most sensitive. There is inadequate information to provide appropriate management.

### Invasive Species

**A.129** Non-native invasive species such as sea squirt and pacific oyster are spreading along the Kent coast and could begin to impact on the Swale. Sea squirt has been found in the Medway, and Pacific oysters are regarded as increasing in the Essex-Southend area. These species threaten habitats due to their ability to smother substrate and other sessile organisms. There is no good understanding of the overall distribution of these species in this site. Assessment is needed in key areas of ports and marinas, where introductions tend to first occur.

## Changes in Species Distributions

**A.130** There is a decline in population size for some of the bird species on some of the SPAs [See reference 40]. These are likely to be influenced by a number of factors which may vary across the four SPAs. Some of these influences are site-based as described in other parts of this Plan and some relate to wider, broad-scale changes such as wintering species distributions and effects from breeding grounds outside the UK. A greater understanding of the relative importance of site-based and wider influences is required in order to identify the potential for further actions that might halt declines, restore populations or identify scenarios where it is thought unlikely that site-based measures will reverse population declines.

## Fisheries: Commercial Marine and Estuarine

**A.131** The extent and impacts of fisheries on private grounds, particularly in the Swale Estuary, needs to be better understood. There are particular concerns regarding the dredging of shellfish within the SPAs which are a food source for the protected birds.

## Invasive Species

**A.132** Freshwater non-native invasive species such as pennywort, crassula, parrots feather etc. can engulf ditches, leading to loss of habitat for diving ducks. Although there are some mechanisms in place to ensure ditch management, more baseline information is needed, particularly on those species for which ditch management is not the solution.

## Invasive Species

**A.133** *Spartina anglica* may be increasing at the expense of other saltmarsh habitats with adverse implications for SPA bird roost areas in Benfleet and Southend Marshes.

## Vehicles: Illicit

**A.134** The illicit use of motor vehicles (often bikes) occurs across the area. This can cause disturbance to SPA birds. This activity was identified as a medium risk during the 2009 EMS risk review project and is still occurring. Whilst various mechanisms are in place to prevent the use of vehicles they are clearly not entirely effective.

## Fisheries: Commercial Marine and Estuarine

**A.135** Commercial fishing activities categorised as ‘amber or green’ under Defra’s revised approach to commercial fisheries in European Marine Sites require assessment and (where appropriate) management. This assessment will be undertaken by Kent and Essex IFCA. For activities categorised as ‘green’, these assessments should take account of any in-combination effects of amber activities, and/or appropriate plans or projects, in the site.

## Air Pollution: Risk of Atmospheric Nitrogen Deposition

**A.136** Nitrogen deposition exceeds site-relevant critical loads.

## Non-qualifying habitats and species upon which the qualifying habitats and/or species depend

- In general, the qualifying bird species of the SPA rely on:
  - The sites ecosystem as a whole (see list of habitats below).
  - Maintenance of populations of species that they feed on (see list of diets below).
  - Off-site habitat, which provide foraging habitat for these species.
  - Open landscape with unobstructed line of sight within nesting, foraging or roosting habitat.
- Dark-bellied brent goose, *Branta bernicla bernicla*
  - Habitat Preference – Tundra, and on migration marshes and estuaries.
  - Diet – Vegetation, especially eel-grass.
- Common shelduck, *Tadorna tadorna*
  - Habitat Preference – Coasts, estuaries and lakes.
  - Diet – Mostly invertebrates, especially insects, molluscs and crustaceans.
- Northern pintail, *Anas acuta*
  - Habitat Preference – Lakes, rivers, marsh and tundra.
  - Diet – A variety of plants and invertebrates.
- Avocet, *Recurvirostra avosetta*
  - Habitat Preference – Mudflats, lagoons and sandy beaches.
  - Diet – Aquatic insects and their larvae, crustaceans and worms.
- Ringed plover, *Charadrius hiaticula*
  - Habitat Preference – Sandy areas with low vegetation, and on migration estuaries.

## Appendix A Attributes of European Sites

- Diet – In summer, invertebrates and in winter primarily marine worms, crustaceans and molluscs.
- Grey plover, *Pluvialis squatarola*
  - Habitat Preference – Tundra, and on migration pasture and estuaries.
  - Diet – In summer, invertebrates and in winter primarily marine worms, crustaceans and molluscs.
- Red knot, *Calidris canutus islandica*
  - Habitat Preference – Tundra, and on migration coastal habitat.
  - Diet – In summer, insects and plant material, and in winter inter-tidal invertebrates, esp molluscs.
- Dunlin, *Calidris alpina alpina*
  - Habitat Preference – Tundra, moor, heath, and on migration estuaries and coastal habitat.
  - Diet – Insects, snails and worms.
- Common redshank, *Tringa totanus*
  - Habitat Preference – Rivers, wet grassland, moors and estuaries.
  - Diet – Invertebrates, especially earthworms, crane-fly larvae (inland) crustaceans, molluscs, marine worms (estuaries).
- Little tern, *Sterna albifrons*
  - Habitat Preference – Seacoasts, rivers and lakes.
  - Diet – Small fish and invertebrates.
- Black-tailed godwit, *Limosa limosa islandica*
  - Habitat Preference – Marshy grassland and steppe, and on migration mudflats.
  - Diet – Insects, worms and snails, but also some plants, beetles, grasshoppers and other small insects during the breeding season.



## Medway Estuary and Marshes Ramsar Site (4684.36ha)

### Overview of Site and Its Location

**A.137** As for Medway Estuary and Marshes SPA above.

### Qualifying Features

**A.138** Site holds several nationally scarce plants, including:

- Sea barley, *Hordeum marinum*; curved hard-grass, *Parapholis incurve*; annual beard-grass, *Polypogon monspeliensis*; Borrer's saltmarsh-grass, *Puccinellia fasciculata*; slender hare's-ear, *Bupleurum tenuissimum*; sea clover, *Trifolium squamosum*; saltmarsh goose-foot, *Chenopodium chenopodioides*; golden samphire, *Inula crithmoides*; perennial glasswort, *Sarcocornia perennis*; and one-flowered glasswort, *Salicornia pusilla*.

**A.139** A total of at least twelve British Red Data Book species of wetland invertebrates have been recorded on the site including:

- Ground beetle, *Polistichus connexus*; a fly, *Cephalops perspicuus*; a dancefly, *Poecilobothrus ducalis*; a fly, *Anagnota collini*; a weevil, *Baris scolopacea*; a water beetle, *Berosus spinosus*; a beetle, *Malachius vulneratus*; a rove beetle, *Philonthus punctus*; the ground lackey moth, *Malacosoma castrensis*; a horsefly, *Atylotus latistriatus*; a fly, *Campsicnemus magius*; a soldier beetle, *Cantharis fusca*; a crane fly, *Limonia danica*.

**A.140** A significant number of non-wetland British Red Data Book species also occur.

**A.141** The Site also supports the following internationally important waterbird assemblage:

- Grey plover, *Pluvialis squatarola*; Common redshank, *Tringa totanus totanus*; Dark-bellied brent goose, *Branta bernicla bernicla*; Common shelduck, *Tadorna tadorna*; Northern pintail, *Anas acuta*; Ringed plover, *Charadrius hiaticula*; Red knot, *Calidris canutus islandica*; Dunlin, *Calidris alpina alpina*.

**A.142** Species/populations identified subsequent to designation for possible future consideration under criterion 6:

- Black-tailed godwit, *Limosa limosa islandica*.

## Conservation Objectives

**A.143** None available.

## Pressures and Threats

**A.144** As for Medway Estuary and Marshes SPA above.

## Non-qualifying habitats and species upon which the qualifying habitats and/or species depend

- Plants
  - Plant communities are reliant on the coastal habitats within the Ramsar site. These habitats are dependent on a range of coastal factors and processes, including salinity, sedimentation, sea level, turbidity and elevation.
- Invertebrates

- These species are reliant on the saltmarsh habitat and characteristic flora and fauna present within the European site. Key sources of food range from flowering plants, organic matter and other invertebrate species.
- Birds
  - Similar to Medway Estuary and Marshes SPA above.

# Stour and Orwell Estuaries SPA (3676.92ha)

## Overview of Site and Its Location

**A.145** The Stour and Orwell estuaries straddle the eastern part of the Essex/Suffolk border. The estuaries include extensive mud-flats, low cliffs, saltmarsh and small areas of vegetated shingle on the lower reaches. The site also includes areas of low-lying grazing marsh at Shotley Marshes on the south side of the Orwell and at Cattawade Marshes at the head of the Stour. In summer, the site supports important numbers of breeding Avocet *Recurvirostra avosetta*, while in winter it holds major concentrations of waterbirds, especially geese, ducks and waders.

## Qualifying Features

**A.146** Annex I species:

- Over winter: Hen harrier, *Circus cyaneus*.

**A.147** This site also qualifies under Article 4.2 of the Directive (79/409/EEC) by supporting populations of European importance of the following migratory species:

## Appendix A Attributes of European Sites

- Over winter: Black-tailed godwit, *Limosa limosa islandica*; Dunlin, *Calidris alpina alpina*; Grey plover, *Pluvialis squatarola*; Pintail, *Anas acuta*; Redshank, *Tringa tetanus*; Ringed plover, *Charadrius hiaticula*; Shelduck, *Tadorna tadorna*; Turnstone, *Arenaria interpres*.

**A.148** The area qualifies under Article 4.2 of the Directive (79/409/EEC) by regularly supporting at least 20,000 waterfowl including:

- Cormorant, *Phalacrocorax carbo*; Pintail, *Anas acuta*; Ringed plover, *Charadrius hiaticula*; Grey plover, *Pluvialis squatarola*; Dunlin, *Calidris alpina alpina*; Black-tailed godwit, *Limosa limosa islandica*; Redshank, *Tringa tetanus*; Shelduck, *Tadorna tadorna*; Great crested grebe, *Podiceps cristatus*; Curlew, *Numenius arquata*; Dark-bellied brent goose, *Branta bernicla bernicla*; Wigeon, *Anas penelope*; Goldeneye, *Bucephala clangula*; Oystercatcher, *Haematopus ostralegus*; Lapwing, *Vanellus vanellus*; Knot, *Calidris canutus*; Turnstone, *Arenaria interpres*.

## Conservation Objectives

**A.149** With regard to the SPA and the individual species and/or assemblage of species for which the site has been classified, and subject to natural change.

**A.150** 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; and
- The distribution of the qualifying features within the site.

## Pressures and Threats

### Coastal Squeeze

**A.151** Coastal defences exist along much of the Orwell coastline. Sea level rise is also occurring. It is therefore certain, that if circumstances do not change, much of the supporting habitats of the SPA birds will be lost/degraded through processes such as coastal squeeze; sedimentation rates inability to keep pace with sea level rise; and reduced exposure (extent and duration) of mudflats/sandflats. Seawalls afford little scope for natural adaption to sea level rise.

### Public Access/Disturbance

**A.152** Breeding and overwintering waterbirds are susceptible to human disturbance from a range of land- and water-based activities, including: boating and watersports; walking; bait-digging; fishing; wildfowling, and military overflight training. Some activities, such as powerboating, may produce physical disturbance to habitats. Moderate levels of disturbance in less sensitive locations may have no significant effect on the numbers of birds using the SIP area but the types, levels and locations of potentially disturbing activities are constantly changing. A better understanding will be required of: which species and habitats are most susceptible; which types of activity are most disturbing; and which locations and times of year are most sensitive in order to manage change, with intervention as necessary in order to minimise the risks of disturbance impacts.

### Changes in Species Distributions

**A.153** Numbers of some species of birds are declining on the Stour and Orwell Estuaries. This may be related to international changes in distribution and/or

population levels related to climate change. This includes climatic variables and habitat quality issues at breeding grounds outside of the UK.

### Invasive Species

**A.154** The growth in *Spartina anglica* may be impacting on *Spartina maritima* (part of the supporting habitat feature), adversely impacting on bird roosting and feeding areas of saltmarsh and mudflat.

### Planning Permission: General

**A.155** Several of the issues affecting the Stour and Orwell Estuaries and the management of disturbance effects on the sites are related to each other. Addressing them is likely to require an improved overview of the relative sensitivities of different habitats, species and locations to different types of development (perhaps summarised as sensitivity maps and matrices for the SIP area). Difficult issues include; a) Assessing the cumulative effects of numerous, small and often 'non-standard' developments. b) Development outside the SPA boundary can have negative impacts, particularly on the estuaries' birds. c) Assessing the indirect, 'knock-on' effects of proposals. d) Pressure to relax planning conditions on existing developments.

### Air Pollution: Impact of Atmospheric Nitrogen Deposition

**A.156** Nitrogen deposition exceeds the site-relevant critical load for ecosystem protection and hence there is a risk of harmful effects, but the sensitive features are currently considered to be in favourable condition on the site. This requires further investigation.

## Inappropriate Coastal Management

**A.157** Freshwater habitat areas behind failing seawall walls could be inundated by seawater which would remove this habitat from the site.

## Fisheries: Commercial Marine and Estuarine

**A.158** Commercial fishing activities categorised as ‘amber or green’ under Defra’s revised approach to commercial fisheries in European Marine Sites (EMS) require assessment and (where appropriate) management. This assessment will be undertaken by Kent and Essex IFCA and Eastern IFCA. For activities categorised as ‘green’, these assessments should take account of any in-combination effects of amber activities, and/or appropriate plans or projects, in the site.

## Non-qualifying habitats and species upon which the qualifying habitats and/or species depend

- In general, the qualifying bird species of the SPA rely on:
  - The sites ecosystem as a whole (see list of habitats below).
  - Maintenance of populations of species that they feed on (see list of diets below).
  - Off-site habitat, which provide foraging habitat for these species.
  - Open landscape with unobstructed line of sight within nesting, foraging or roosting habitat.
- Black-tailed godwit, *Limosa limosa islandica*
  - Habitat Preference – Marshy grassland and steppe, and on migration mudflats.

## Appendix A Attributes of European Sites

- Diet – Insects, worms and snails, but also some plants, beetles, grasshoppers and other small insects during the breeding season.
- Dunlin, *Calidris alpina alpina*
  - Habitat Preference – Tundra, moor, heath, and on migration estuaries and coastal habitat.
  - Diet – Tundra, moor, heath, and on migration estuaries and coastal habitat.
- Grey plover, *Pluvialis squatarola*
  - Habitat Preference – Tundra, and on migration pasture and estuaries.
  - Diet – In summer, invertebrates and in winter primarily marine worms, crustaceans and molluscs.
- Pintail, *Anas acuta*
  - Habitat Preference – Lakes, rivers, marsh and tundra.
  - Diet – A variety of plants and invertebrates.
- Redshank, *Tringa totanus*
  - Habitat Preference – Rivers, wet grassland, moors and estuaries.
  - Diet – Invertebrates, especially earthworms, crane-fly larvae (inland) crustaceans, molluscs, marine worms (estuaries).
- Ringed plover, *Charadrius hiaticula*
  - Habitat Preference – Sandy areas with low vegetation, and on migration estuaries.
  - Diet – Mostly invertebrates, especially insects, molluscs and crustaceans.
- Shelduck, *Tadorna tadorna*
  - Habitat Preference – Coasts, estuaries and lakes.
  - Diet – Mostly invertebrates, especially insects, molluscs and crustaceans.



## Appendix A Attributes of European Sites

- Turnstone, *Arenaria interpres*
  - Habitat Preference – On migration beaches and rocky coasts.
  - Diet – Insects, crustaceans and molluscs.
- Cormorant, *Phalacrocorax carbo*
  - Habitat Preference – Larger lakes and coastal.
  - Diet – Fish.
- Great crested grebe, *Podiceps cristatus*
  - Habitat Preference – Reed-bordered lakes, gravel pits, reservoirs and rivers. In the winter, they are also found along the coast.
  - Diet – Mostly fish, some aquatic invertebrates especially in summer.
- Curlew, *Numenius arquata*
  - Habitat Preference – Marsh, grassland and on migration mudflats.
  - Diet – Worms, shellfish and shrimps.
- Dark-bellied brent goose, *Branta bernicla bernicla*
  - Habitat Preference – Tundra, and on migration marshes and estuaries.
  - Diet – Vegetation, especially eel-grass.
- Wigeon, *Anas Penelope*
  - Habitat Preference – Marsh, lakes, open moor, on migration estuaries.
  - Diet – Mostly leaves, shoots, rhizomes and some seeds.
- Goldeneye, *Bucephala clangula*
  - Habitat Preference – Lakes, rivers, and on migration seacoasts.
  - Diet – Insects, molluscs and crustaceans.
- Oystercatcher, *Haematopus ostralegus*
  - Habitat Preference – Sandy, muddy and rocky beaches.
  - Diet – Mussels and cockles on the coast, mainly worms inland.

## Appendix A Attributes of European Sites

- Lapwing, *Vanellus vanellus*
  - Habitat Preference – Pasture, arable land, wet meadow, on migration estuaries.
  - Diet – Worms and insects.
- Red knot, *Calidris canutus islandica*
  - Habitat Preference – Tundra, and on migration coastal habitat.
  - Diet – In summer, insects and plant material, and in winter inter-tidal invertebrates, esp molluscs.
- Knot, *Calidris canutus*
  - Habitat Preference – Coastal habitat.
  - Diet – Insects and plant material during the summer; and inter-tidal invertebrates, especially molluscs during the winter.

# Stour and Orwell Estuaries Ramsar Site (3676.92ha)

## Overview of Site and Its Location

**A.159** As for Stour and Orwell Estuaries SPA above.

## Qualifying Features

**A.160** Species/populations with peak counts in spring/autumn:

- Ringed plover, *Charadrius hiaticula*; Common redshank, *Tringa totanus* tetanus.

**A.161** Species/populations with peak counts in winter:

- Dark-bellied brent goose, *Branta bernicla bernicla*; Black-tailed godwit, *Limosa limosa islandica*.

**A.162** Species/populations identified subsequent to designation for possible future consideration under criterion 6:

- Grey plover, *Pluvialis squatarola*.

## Conservation Objectives

**A.163** None available.

## Pressures and Threats

**A.164** As for Stour and Orwell Estuaries SPA above.

# Thames Estuary and Marshes SPA (4838.94ha)

## Overview of Site and Its Location

**A.165** The Greater Thames Complex consists of the Thames Estuary and Marshes SPA, the Medway Estuary SPA, the Swale SPA and Benfleet and Southend Marshes SPA. The Medway Estuary feeds into and lies on the south side of the outer Thames Estuary in Kent, south-east England. It forms a single tidal system with the Swale and joins the Thames Estuary between the Isle of Grain and the Isle of Sheppey. The Swale is an estuarine area that separates the Isle of Sheppey from the Kent mainland and joins the Medway to the west.

Benfleet and Southend Marshes is an estuarine area on the Essex side of the Thames Estuary. These four sites contain a wide diversity of coastal habitats, such as grazing marsh, saltmarsh and mud/sandflat and eelgrass beds that support important numbers of waterbirds throughout the year. Wintering birds that use these estuaries include grebes, geese, ducks and waders whilst in summer breeding birds can be found, such as waders and terns. The area is also important for spring and autumn migration periods.

## Qualifying Features

**A.166** Supports the following internationally important waterbird assemblage:

- Hen harrier, *Circus cyaneus* (Non-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); Black-tailed godwit, *Limosa limosa islandica* (Non-breeding); Common redshank, *Tringa tetanus* (Non-breeding).

## Conservation Objectives

**A.167** With regard to the SPA and the individual species and/or assemblage of species for which the site has been classified, and subject to natural change.

**A.168** 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; and

- The distribution of the qualifying features within the site.

## Pressures and Threats

### Coastal Squeeze

**A.169** Coastal defences exist along much of the coastline here. Sea level rise is also occurring. It is therefore certain that if circumstances do not change, much of the supporting habitats of the SPA birds will be lost/degraded through processes such as: coastal squeeze; sedimentation rates' inability to keep pace with sea level rise; and reduced exposure (the extent and duration) of mudflats and sandflats.

### Public Access/Disturbance

**A.170** Breeding and overwintering waterbirds are susceptible to human disturbance from a range of land- and water-based activities, including: boating and watersports; walking; bait-digging; fishing, and wildfowling. Some activities such as powerboating, may produce physical disturbance to habitats. Public access, (especially dog walking and recreational boating) was identified as a medium risk during the 2009 EMS risk review project and this activity is still occurring. Moderate levels of disturbance in less sensitive locations may have no significant effect on the numbers of birds using the SIP area but the types, levels and locations of potentially disturbing activities are constantly changing. Managing the changes to minimise the risk of disturbance impacts will require a better understanding of which species and habitats are most susceptible, which types of activity are most disturbing, and which locations and times of year are most sensitive. There is inadequate information to provide appropriate management.

## Invasive Species

**A.171** Non-native invasive species such as sea squirt and Pacific oyster are spreading along the Kent coast and could begin to impact on the Swale. Sea squirt has been found in the Medway, and Pacific oysters are regarded as increasing in the Essex-Southend area. These species threaten habitats due to their ability to smother substrate and other sessile organisms. There is no good understanding of the overall distribution of these species in this site. Assessment is needed in key areas of ports and marinas, where introductions tend to first occur.

## Changes in Species Distributions

**A.172** There is a decline in population size for some of the bird species on some of the SPAs (Cook et al. 2013\*). These are likely to be influenced by a number of factors which may vary across the four SPAs. Some of these influences are site-based as described in other parts of this Plan and some relate to wider, broad-scale changes such as wintering species distributions and effects from breeding grounds outside the UK. A greater understanding of the relative importance of site-based and wider influences is required in order to identify the potential for further actions that might halt declines, restore populations or identify scenarios where it is thought unlikely that site-based measures will reverse population declines. \*Cook A.S.C.P., Barimore C., Holt C.A., Read W.J. and Austin G.E. 2013. Wetland Bird Survey Alerts 2009/2010: Changes in numbers of wintering waterbirds in the Constituent Countries of the United Kingdom, Special Protection Areas (SPAs) and Sites of Special Scientific Interest (SSSIs). BTO Research Report 641. BTO, Thetford.

## Fisheries: Commercial Marine and Estuarine

**A.173** The extent and impacts of fisheries on private grounds, particularly in the Swale Estuary, needs to be better understood. There are particular concerns

regarding the dredging of shellfish within the SPAs which are a food source for the protected birds.

### Invasive Species

**A.174** Freshwater non-native invasive species such as pennywort, crassula, parrots feather etc. can engulf ditches, leading to loss of habitat for diving ducks. Although there are some mechanisms in place to ensure ditch management, more baseline information is needed, particularly on those species for which ditch management is not the solution.

### Invasive Species

**A.175** *Spartina anglica* may be increasing at the expense of other saltmarsh habitats with adverse implications for SPA bird roost areas in Benfleet and Southend Marshes.

### Vehicles: Illicit

**A.176** The illicit use of motor vehicles (often bikes) occurs across the area. This can cause disturbance to SPA birds. This activity was identified as a medium risk during the 2009 EMS risk review project and is still occurring. Whilst various mechanisms are in place to prevent the use of vehicles they are clearly not entirely effective.

### Fisheries: Commercial Marine and Estuarine

**A.177** Commercial fishing activities categorised as 'amber or green' under Defra's revised approach to commercial fisheries in European Marine Sites require assessment and (where appropriate) management. This assessment will be undertaken by Kent and Essex IFCA. For activities categorised as

'green', these assessments should take account of any in-combination effects of amber activities, and/or appropriate plans or projects, in the site.

## Air Pollution: Risk of Atmospheric Nitrogen Deposition

A.178 Nitrogen deposition exceeds site-relevant critical loads.

### Non-qualifying habitats and species upon which the qualifying habitats and/or species depend

- In general, the qualifying bird species of the SPA rely on:
  - The sites ecosystem as a whole (see list of habitats below).
  - Maintenance of populations of species that they feed on (see list of diets below).
  - Off-site habitat, which provide foraging habitat for these species.
  - Open landscape with unobstructed line of sight within nesting, foraging or roosting habitat.
- Hen harrier, *Circus cyaneus*
  - Habitat Preference – Moor, marsh, steppe and fields.
  - Diet – Mainly small birds and mammals.
- Avocet, *Recurvirostra avosetta*
  - Habitat Preference – Mudflats, lagoons and sandy beaches.
  - Diet – Aquatic insects and their larvae, crustaceans and worms.
- Ringed plover, *Charadrius hiaticula*
  - Habitat Preference – Sandy areas with low vegetation, and on migration estuaries.



## Appendix A Attributes of European Sites

- Diet – In summer, invertebrates and in winter primarily marine worms, crustaceans and molluscs.
- Grey plover, *Pluvialis squatarola*
  - Habitat Preference – Tundra, and on migration pasture and estuaries.
  - Diet – In summer, invertebrates and in winter primarily marine worms, crustaceans and molluscs.
- Red knot, *Calidris canutus islandica*
  - Habitat Preference – Tundra, and on migration coastal habitat.
  - Diet – In summer, insects and plant material, and in winter inter-tidal invertebrates, esp molluscs.
- Dunlin, *Calidris alpina alpina*
  - Habitat Preference – Tundra, moor, heath, and on migration estuaries and coastal habitat.
  - Diet – Insects, snails and worms.
- Black-tailed godwit, *Limosa limosa islandica*
  - Habitat Preference – Marshy grassland and steppe, and on migration mudflats.
  - Diet – Insects, worms and snails, but also some plants, beetles, grasshoppers and other small insects during the breeding season.
- Common redshank, *Tringa totanus*
  - Habitat Preference – Rivers, wet grassland, moors and estuaries.
  - Diet – Invertebrates, especially earthworms, crane-fly larvae (inland) crustaceans, molluscs, marine worms (estuaries).

## Thames Estuary and Marshes Ramsar Site (4838.94ha)

### Overview of Site and Its Location

**A.179** As for Thames Estuary and Marshes SPA above.

### Qualifying Features

**A.180** The site supports one endangered plant species and at least 14 nationally scarce plants of wetland habitats.

**A.181** The site also supports more than 20 British Red Data Book invertebrates. Assemblages of international importance 45118 waterfowl including the following species:

- Ringed plover, *Charadrius hiaticula*; Black-tailed godwit, *Limosa limosa islandica*; Grey plover, *Pluvialis squatarola*; Red knot, *Calidris canutus islandica*; Dunlin, *Calidris alpina alpina*; Common redshank, *Tringa totanus tetanus*.

### Conservation Objectives

**A.182** None available.

### Pressures and Threats

**A.183** As for Thames Estuary and Marshes SPA above.

## Non-qualifying habitats and species upon which the qualifying habitats and/or species depend

### ■ Plants

- Plant communities are reliant on the coastal habitats within the Ramsar site. These habitats are dependent on a range of coastal factors and processes, including salinity, sedimentation, sea level, turbidity and elevation.

### ■ Birds

- Similar to Thames Estuary and Marshes SPA above.

## Appendix B

# Review of Other Plans and Projects

## Regional Level Plans

### The South East Marine Plan

#### Plan Owner/Competent Authority

- UK Government – Marine Management Organisation.

#### Related Work HRA/AA

- MMO (2020) Habitats Regulations Assessment for the North East, North West, South East and South West Marine Plans: Screening Report and Appropriate Assessment Information Report. A report produced for the Marine Management Organisation, pp 232. MMO Project No: 1188.

#### Notes on Project

The plan specifies that “The south east inshore marine plan area stretches from Felixstowe in Suffolk to near Folkestone in Kent, covering approximately 1,400 kilometres of coastline, taking in a total of approximately 3,900 square kilometres of sea. The French marine area, east inshore and offshore marine plan areas and the south inshore marine plan area border the south east inshore marine plan area.

The South East Marine Plan provides a policy framework which will be used to help inform decision-making on what activities take place in the marine

environment and how the marine environment is developed, protected and improved in the next 20 years. It provides a clear, evidence-based approach to inform decision-making by marine users and regulators on where, when or how activities might take place within the south east marine area, balancing environmental, economic and social factors. The area overlaps with 42 local authorities and three Areas of Outstanding Natural Beauty”.

### **HRA Conclusions of Relevance to Basildon Local Plan HRA**

The pre-screening identified the potential for wind farms to result in bird strike to affect several of the European sites considered as part of the HRA of the 2022 Local Plan. Nevertheless, no such impacts will occur as part of the 2022 Local Plan HRA and therefore no in-combination effects between the Plans is predicted as result of bird mortality.

Further, the Appropriate Assessment concluded that there will be no adverse effect on the integrity of a European site arising from the amended South East Marine Plan, and therefore no in-combination effects are predicted. However, there was insufficient detail in the plans to enable individual proposals to be assessed against specific European sites, or project-specific mitigation measures to be discussed and therefore it is essential for project-level HRAs to be carried out.

## County or District Level Plans Providing for Development

### Brentwood Draft Local Plan Preferred Site Allocations January 2018

#### Plan Owner/Competent Authority

- Brentwood Borough Council.

#### Related Work HRA/AA

- The site allocations are supported by the Habitats Regulations Assessment of Brentwood District Council Draft Local Plan: Preferred Site Allocations – Regulation 18 Consultation (January 2018).
- The Pre-Submission Local Plan is supported by the Habitat Regulations Assessment of the Brentwood Borough Council Draft Regulation 19 Local Plan (2019).

#### Notes on Plan Documents

The Council is currently preparing a new Local Plan for the Borough which, once adopted, will supersede saved policies in the current Replacement Local Plan (2005). Public consultation has taken place for both the Pre-submission Local Plan (2019) and the Draft Local Plan Preferred Site Allocation (2018) in Autumn 2019 and Winter 2018 respectively.

Brentwood Borough Council Pre-Submission Local Plan, Regulation 19 (2019) provides for 7,752 new residential dwellings (net) to be built in the borough over

the plan period at an annual average rate of 310 dwellings per year to 2022/23, followed by 584 dwellings per year from 2023/24-2033.

### HRA Conclusions of Relevance to Basildon Local Plan HRA

Habitats Regulations Assessment of Brentwood District Council Draft Local Plan: Preferred Site Allocations – Regulation 18 Consultation (January 2018) concluded:

- To ensure that residential site allocations do not affect the integrity of a European site in combination, it was recommended that the Council adhere to the interim strategic guidance set out by Natural England. The HRA included recommended that, because the Essex Estuaries SAC and Thames Estuary and Marshes SPA and Ramsar fall within the 10km 'Zone of Influence' identified in the local plan HRA report, the approach to avoidance and mitigation measures set out in the Essex Recreational disturbance Avoidance and Mitigation Strategy (RAMS) will be required. The potential for in-combination effects as a result of recreational pressures between the Local Authorities is well established and recognised and the RAMS approach has been specifically advocated to address such issues. More detail is provided in Chapters 4 and 5.
- The HRA report also provided recommendations in relation to water quality because the Ingatestone and Doddinghurst WRCs are at capacity. It was recommended that the Council prepared their Plan in consultation with Thames Water and Anglian Water to ensure that development is delivered in locations that can accommodate increased sewage inputs or appropriate upgrades provided. The potential for in-combination effects with Basildon has been considered in this assessment, but due to reliance on separate WRC's no such effects are predicted.

Habitat Regulations Assessment of Brentwood Borough Council Draft Regulation 19 Local Plan (January 2019) concluded:

- All Local Plan policies could be screened out from resulting in likely significant effects in isolation, however recognised that a number of

policies had a potential to act in combination with neighbouring plans, and result in a Likely Significant Effect in combination. Therefore, three impact pathways; atmospheric pollution on Epping Forest and recreational pressure and adverse water quality on Essex Coast European sites were subject to Appropriate Assessment.

- The Appropriate Assessment concluded that Brentwood Local Plan provides sufficient policy framework to ensure no adverse effects on the integrity of the European site results. Also as highlighted in the 2018 HRA, recommendations were included with regard to capacity limitation of Ingatestone, Doddinghurst, Upminster and Brentwood wastewater treatment works (WwTWs). The Council was advised (unless it has already taken place) to seek confirmation from the relevant water companies to ensure their development plans do not contribute to the sites known to be at capacity.

## New Castle Point Local Plan Pre-submission Plan 2018-2033 (December 2019)

### Plan Owner/Competent Authority

- Castle Point Borough Council.

### Related Work HRA/AA

- Place Services (September 2020) Habitats Regulations Assessment (Screening Report and Appropriate Assessment) for Castle Point Borough Pre-Submission Plan 2018-2033.



## **Notes on Plan Documents**

Castle Point Borough Council submitted the Castle Point Local Plan 2018-2033 to the Secretary of State on 2<sup>nd</sup> October 2020 for examination.

This plan identified land for 5,284 new homes over the plan period up until 2033, which equates to 352 new homes per annum and exceeds the target of 342 homes per annum calculated using the standard methodology.

## **HRA Conclusions of Relevance to Basildon Local Plan HRA**

The HRA found that many potential adverse effects will be avoided with the use of Construction Environment Management Plans. To further ensure no adverse effect, the Appropriate Assessment recommended a suite of wording amendments to the Castle Point local plan. A selection of these include; policy wording changes, amendments to supporting text for policies, incorporation of the Thames Estuary and Marshes SPA and Ramsar site (as well as Benfleet and Southend Marshes) into designated site protection policies and strengthening of the supporting text for NE7 (Pollution control).

The HRA (including AA) concluded that the Castle Point Pre-submission Local Plan is not predicted to have any adverse effects on integrity (AEOI) on any Habitats Sites, either alone or in combination with other plans and projects.

## **Chelmsford Local Plan 2013-2036 (May 2020)**

### **Plan Owner/Competent Authority**

- Chelmsford City Council.

## Related Work HRA/AA

- Chelmsford Local Plan Habitats Regulations Assessment (June 2019)  
Review of Pre-submission Local Plan Modifications and HRA conclusions.
- Chelmsford Pre-Submission Local Plan Habitat Regulations Assessment (Update) (January 2018).

## Notes on Plan Documents

The Chelmsford Local Plan 2013-2036 was adopted in May 2020. The plan provides for a minimum of 18,515 net new homes at an average annual rate of 805 net new homes per year.

## HRA Conclusions of Relevance to Basildon Local Plan HRA

The HRA screening identified the potential for significant effects on 15 European sites or sites treated as such, including the Crouch and Roach Estuaries SPA and Ramsar, Blackwater Estuary SPA and Ramsar, Benfleet and Southend Marshes SPA and Ramsar, Foulness SPA and Ramsar, Thames Estuary and Marshes SPA and Ramsar, Dengie SPA and Ramsar, Outer Thames Estuary SPA, Epping Forest SAC and the Essex Estuaries SAC, both alone and in-combination. The Appropriate Assessment stage explicitly sets out the Authorities commitment to the Essex Coastal RAMs and Chelmsford City Council is one of the Essex Authorities which have signed a Memorandum of Understanding relating to the production and implementation of the RAMS. The assessment took into account mitigation measures included within the Local Plan and concluded that the new local plan will have no adverse effects on the integrity of an any European site, alone or in combination with other plans or project. This is discussed in more detail in Chapter 5 but the RAMS approach being followed provides a sufficient level of certainty to ensure that in-combination effects between Basildon Borough and Castle Point Borough will be avoided.

# Gravesham District Local Plan Core Strategy (Kent) (September 2014)

## Plan Owner/Competent Authority

- Gravesham Borough Council.

## Related Work HRA/AA

- Gravesham Local Plan Habitats Regulations Assessment Scoping Report, October 2020.
- HRA of Proposed Submission Core Strategy, December 2012.
- HRA Addendum Report, December 2013.
- HRA of Local Plan Site Allocations and Development Management Policies Document.

## Notes on Plan Documents

The Local Plan Core Strategy and Policies Map were adopted on 30<sup>th</sup> September 2014. Development provided for includes at least 6,170 new dwellings during 2011-2028, however the Government's standard method for calculating housing need confirmed that the borough's housing need had increased since the adoption of the Local Plan Core Strategy, and a review was required. A consultation was held on the Local Plan Core Strategy over winter 2020. There is a need in the borough for 10,480 new dwelling in the Borough between 2020-2036, however the Council can only demonstrate a supply of 2,754 dwelling between 2020 and 2025. Further details are provided in the Gravesham Local Plan Housing Delivery Action Plan 2020.

Gravesham is currently preparing a partial review of the Local Plan Core Strategy, Site Allocation and a Development Management Policies Document.

A consultation was held over Winter 2020. Once adopted, these documents will form part of the Development Plan and replace some of the policies in the adopted Local Plan Core Strategy and the remaining saved policies in the Gravesham Local Plan First Review.

### HRA Conclusions of Relevance to Basildon Local Plan HRA

The following likely significant effects of relevance to the Basildon Local Plan HRA were identified:

- Recreational disturbance: the HRA screening identified potential likely significant effects on Thames Estuary and Marshes SPA and Ramsar site in-combination with development in surrounding districts but Basildon was not identified as one of these since all of the former and almost all of the latter European site are separated from Basildon by the Thames Estuary with the nearest fixed link crossing point, the Dartford Tunnel a significant distance upstream. Significant effects on integrity were ruled out by reliance on existing Core Strategy policies requiring provision of alternative recreation space and on recommended additions to the Core Strategy, including commitments to implement the findings of the bird population and visitor studies commissioned by the North Kent Environmental Planning Group and to adopt a flexible approach that enables development plan documents to be reviewed in the light of emerging evidence.
- The Gravesham HRA Scoping Report (2020) could not rule out the potential for likely significant effects (LSEs) on three of the European sites included within the assessment. These included Thames Estuary and Marshes SPA and Ramsar, Medway Estuary and Marshes SPA and Ramsar and the North Downs Woodland SAC. The impacts judged likely to have a significant effect will be subject to an Appropriate Assessment in order to determine whether they would result in an adverse effect on the integrity of the qualifying features of a European site.

## Maldon District Local Development Plan, 2014-2019 (July 2017)

### Plan Owner/Competent Authority

- Maldon District Council.

### Related Work HRA/AA

- Maldon District Council Approved Local Development Plan 2014-2029 Sustainability Appraisal Report incorporating Strategic Environmental Assessment and Habitats Regulations Assessment.

### Notes on Plan Documents

The Secretary of State Approved the Maldon District Local Development Plan on 21<sup>st</sup> July 2017. The Council will plan for a minimum of 4,650 dwellings between 2014 and 2029 (310 per annum), with the current supply of housing forecasted to be 5,108 dwellings by 2029.

### HRA Conclusions of Relevance to Basildon Local Plan HRA

A number of individual policies were identified as having potential likely significant effects:

- S2 Strategic Growth: Potential pressure from housing growth on water resources and water quality could affect condition of Blackwater Estuary SPA and Ramsar site and Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA and Ramsar site but adequate protection judged to exist from the Environment Agency's abstraction and effluent discharge

## Appendix B Review of Other Plans and Projects

consenting regimes. Potential recreational pressure from additional housing to the south of Maldon town and north of Heybridge but unlikely to significantly increase existing recreational pressure from these settlements and mitigation provided in the form of additional open space.

- Policy H7 Agricultural and Essential Workers' Accommodation: The provision of accommodation for agricultural workers has the potential to have a likely significant effect on the international sites depending on the location of these developments. The creation of new development could cause damage to habitats if located within the international sites, or noise and visual disturbance from the proximity of the buildings to the international sites. Whilst locations are not known at this time it is considered that the predominantly estuarine nature of the international sites means they are not suitable for development due to access, risk of flooding and lack of suitable land. In addition, this development is intended to accommodate small numbers of people, therefore the associated noise and visual disturbance on the international sites would be minimal. It is therefore considered that this policy is not likely to have a significant effect on the sites.
- Policy N1 Green Infrastructure Network: Through the creation of a green infrastructure network across the District there is the potential that this policy could result in increased numbers of people along the estuaries, causing a visual and noise disturbance.

The HRA concluded that there will not be any significant adverse effects on the integrity of European sites alone or in-combination from the Maldon District LDP.

Despite the conclusions within the above HRA, it is noted that Maldon District Council are part of the group of 11 Essex Authorities which have agreed to work together to ensure effects associated with recreational pressures are avoided by means of an Essex RAMS. Therefore, as detailed in Chapter 5, it is predicted that the mitigation and avoidance measures being actively endorsed and undertaken by the Essex Authorities provide additional reassurance that any potential in-combination effects will be avoided.

## Thurrock Council Core Strategy (December 2011)

### **Plan Owner/Competent Authority**

- Thurrock Council.

### **Related Work HRA/AA**

- HRA of Thurrock Local Plan, Scoping and Discussion Report, January 2019.
- HRA Addendum Report for Core Strategy Focussed Review, May 2013.
- Thurrock Proposed Submission Core Strategy and Policies for Management of Development DPD Habitats Regulations Assessment, August 2010.

### **Notes on Plan Documents**

Thurrock Council is currently working on producing a new Local Plan, and a HRA Scoping and Discussion document of the Issues and Options (Stage 2) Local Plan has been prepared.

Core Strategy Adopted December 2011 plus Focussed Review adopted January 2015; the Main Modifications proposed by the latter have been subject to an HRA addendum.

Development provided for includes 13,550 new dwellings during 2009-2021 plus an indicative 4,750 during 2021-2026.

## HRA Conclusions of Relevance to Basildon Local Plan HRA

The HRA of the Thurrock Local Plan, Scoping and Discussion Report, January 2019 could not rule out the potential for likely significant effects (LSEs) on nine of the European sites included within the assessment. These included Thames Estuary and Marshes SPA and Ramsar, Benfleet and Southend Marshes SPA and Ramsar, Medway Estuary and Marshes SPA, Outer Thames Estuary SPA, Crouch and Roach Estuaries SPA and Ramsar, Essex Estuaries SAC, Foulness SPA and Ramsar, Epping Forest SAC and The Swale SPA and Ramsar. The impacts judged likely to have a significant effect will be subject to an Appropriate Assessment in order to determine whether they would result in an adverse effect on the integrity of the qualifying features of a European site.

The HRA of the Core Strategy identified the following types of relevant likely significant effect but adverse effects on site integrity were ruled out after full Appropriate Assessment:

- Coastal squeeze: Potential effects on Thames Estuary and Marshes SPA and Ramsar ruled out due to development being more than 700 m from the European site and caveats within policies on waste and renewable energy development requiring avoidance of effects on European sites.
- London Gateway Port (in-combination project): The policies of the Core Strategy were considered to have the potential for in-combination effects with the development of London Gateway Port on Thames Estuary and Marshes SPA and Ramsar site. Mitigation measures have been approved for this scheme, and the HRA concluded that provided that these are adopted, there is no residual in combination impact likely through disturbance, reduced air quality reduced water quality or coastal squeeze.
- Recreational disturbance: Potential effects on Thames Estuary and Marshes SPA and Ramsar site ruled out due to provision of alternative recreational facilities, including a country park, commitments to management of existing open space and provisions within Thurrock Green Grid Strategy for creation and maintenance of green space and access restrictions. Thurrock Council have committed to working with the Thames



Estuary Partnership (TEP) in order to manage recreation and monitor disturbance, such that the need for any enhanced measures to manage waterborne access can be delivered at the appropriate time. The HRA recommended that these be developed further in conjunction with the TEP in a cohesive management strategy which may need to be informed by visitor surveys of the SPA to determine patterns of recreational use with Thurrock's contribution commensurate with its population size. Recreational disturbance to Essex Estuaries SAC and component Mid-Essex Coast SPA/Ramsar sites ruled out due to existing recreation management plans at some of these European sites and Thurrock Council's commitment to working with TEP. Since the production of the 2013 HRA, the Essex wide consensus of the risks of in-combination effects as a result of recreation are better understood and it is likely that recreational pressures will form an important aspect of the forthcoming HRA of the new Local Plan. Nevertheless, Thurrock is one of the 11 Essex Authorities which have signed a Memorandum of Understanding to produce and implement an Essex Coastal RAMS. This is discussed in more detail in Chapter 5.

## Rochford Core Strategy (December 2011) (New Local Plan in Progress)

### Plan Owner/Competent Authority

- Rochford District Council.

### Related Work HRA/AA

- Habitats Regulations Assessment Screening of Rochford Core Strategy, January 2011.

## Notes on Plan Documents

Rochford is in the process of developing a new local plan, which will set out the strategy for the District to 2040. The new Local Plan will replace a number of the adopted policy documents which form the local development plan for the District, including the Core Strategy. The latest stage of the plan, the Spatial Options document, and its accompanying draft Integrated Impact Assessment, is currently under consultation. Several HRAs exist which are being used as part of the evidence base for informing the preparation of the Local Plan Core Strategy adopted December 2011.

## HRA Conclusions of Relevance to Basildon Local Plan HRA

The following types of potential likely significant effect were identified:

- **Recreational disturbance:** Potential for effects reduced by the fact that the west of the District contains the majority of the existing population and settlements and that new development will be focused on previously developed land in and around these settlements. Provision for new open space and alternative recreational opportunities judged sufficient to rule out likely significant effects.
- **Air pollution:** As for disturbance, potential for likely significant effects due to air pollution from road traffic reduced by the distance between centres of population and European sites in the District. Core strategy policies to protect air quality, existing Council monitoring of air quality and lack of evidence that European sites are vulnerable to poor air quality judged sufficient to rule out likely significant effects.
- **Water resources:** Likely significant in-combination effects on European sites due to increased water abstraction to serve new development and deficit during dry years identified by the Essex Thames Gateway Water Cycle Study 2009 Scoping Study. To avoid likely significant in-combination effects, HRA recommended that wording was inserted into Core Strategy

specifying that development proposals must ensure that their water supply needs can be met without adverse effects on the integrity of a European site and that the findings of the HRA Screening were reviewed once the final stages of the Water Cycle Study were completed.

- Water quality: Uncertainty meant that likely significant in-combination effects could not be ruled out on Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA and Ramsar site due to increased pressure on sewer and WwTW capacity from new development. To avoid likely significant in-combination effects, HRA recommended that Annual Monitoring Report incorporates a requirement for annual monitoring by the EA of the chemical and biological quality of the Crouch and Roach Estuaries to address the uncertainty. If the monitoring reveals that water quality has deteriorated, the Council should consult with the EA and NE to determine the most appropriate course of action.

## **HRA of Adopted Allocations Plan 2014 – Conclusions of Relevance to Basildon Local Plan HRA**

The screening considered the likely significant effects on fifteen European sites within the influence of the plan. It was assessed that the majority of policies/allocations were unlikely to have a significant effect on European sites alone given the location and capacity of proposed development. Given the distance of the larger allocations from European sites and their situation, adjacent to existing towns (such as Rochford, Rayleigh and Hockley), it was assessed that there would be no direct impacts as a result of proposed development. The screening identified the potential for indirect impacts as a result of increased abstraction and increased pressure on sewerage capacity; however, given the capacity of the allocations it was considered unlikely that the proposed development alone would result in an impact that would lead to significant effects on European sites.

It was also considered that appropriate site level mitigation would be available and could be required at the planning application stage to address any unforeseen impacts of individual developments on European sites. It was concluded that the mitigation provided by policies in the Core Strategy and Allocations DPD as well as current regulatory processes (EA Review of Consents) will ensure that the potential impacts of proposed development on the environment are minimised. It was concluded that none of the policies/allocations in the Pre-Submission Allocations DPD would be likely to have significant effects on identified European sites either alone or in combination.

### **HRA of Adopted Development Management Plan 2014 – Conclusions of Relevance to Basildon Local Plan HRA**

The assessment concluded that none of the policies in the Pre-Submission Development Management Document are likely to have significant impacts, either alone or in combination, on European Sites.

### **HRA of Land West of Hullbridge (14/00813/OUT)**

Taking the above into account responses from Natural England the assessment concluded that the proposed development alone will not have adverse effects on the integrity of the Crouch and Roach Estuaries SPA and Ramsar site as a result of habitat loss or increased disturbance. In order to address representations from NE, the HRA recommended that the Council should apply a planning condition to secure the detailed design of the on-site green infrastructure, to ensure that opportunities are taken to design-in circular walks / dog-walking routes and associated facilities as an alternative to walking along the SPA / Ramsar site.

In its response to the outline application in January 2015, NE referred to an application on the opposite side of the estuary to the north-west in Chelmsford City Borough that could potentially have in combination effects with development proposed as part of the application being considered through this HRA. The Appropriate Assessment found that the combined increase in disturbance is not likely to be of significance, due to the relative few occupants within the caravan park utilising the extension in residency within the winter months, the availability of alternative public open space in close proximity to the Hullbridge site and the relatively small numbers of birds recorded within this part of the estuary.

Rochford is also one of the 11 Essex Authorities which have signed a Memorandum of Understanding to produce and implement an Essex Coastal RAMS. This is discussed in more detail in Chapter 5.

## Swale Borough Local Plan – Bearing Fruits 2031, (July 2017)

### Plan Owner/Competent Authority

- Swale Borough Council.

### Related Work HRA/AA

- Habitats Regulations Assessment: Bearing Fruits 2031: The Swale Borough Local Plan: Proposed Main Modifications June 2016.

### Notes on Plan Documents

Local Plan was adopted on 26<sup>th</sup> July 2017. Development provided for includes 10,800 dwellings for 2010-2031.

Swale Borough Council is in the early stages of the next Local Plan, which we are aiming to complete by 2022. It will cover the period from 2022-2038.

### **HRA Conclusions of Relevance to Basildon Local Plan HRA**

The HRA included a detailed consideration of other plans and projects as part of the spring 2015 HRA of the submitted Local Plan and no significant additional plans and projects were identified as part of the have emerged since that time that would lead to new potential pathways for an in combination effect. The main potential for an in-combination effect was identified as being that of cumulative recreational pressure in combination with the Local Plans or Core Strategies of other local authorities planning to deliver net additional recreational development within 6km of the Thames Estuary and Marshes SPA/Ramsar site, Medway Estuary and Marshes SPA/Ramsar site and Swale SPA/Ramsar site. This issue was thoroughly explored in earlier HRAs for the Swale Local Plan and independently as part of the strategic access management and monitoring strategy (SAMM). The conclusion was that likely significant effects would be avoided both alone and in-combination.

### **Essex Minerals Local Plan (July 2014)**

#### **Plan Owner/Competent Authority**

- Essex County Council.

#### **Related Work HRA/AA**

- Habitats Regulations Assessment For the Essex Minerals Local Plan Adopted July 2014 (as amended 2021), Essex County Council, March 2021.

- Essex County Council Replacement Minerals Local Plan: Pre Submission Draft Habitats Regulations Assessment Report, November 2012.

### Notes on Plan Documents

The Essex Minerals Local Plan was adopted on 8<sup>th</sup> July 2014 and amended in 2021 as a result of the mandatory 5 year review. The plan sets out the broad locations where future mineral extraction and associated development will be preferred, and the areas where mineral extraction is discouraged, preferred sites and development management policies.

### HRA Conclusions of Relevance to Basildon Local Plan HRA

The HRA updates the Essex County Council Replacement Minerals Local Plan: Pre-Submission Draft Habitats Regulations Assessment, November 2012. The 2012 HRA concluded that likely significant effects were restricted to those associated with air quality and predation, both of which were scoped out of the Basildon Local Plan HRA as part of the application of assumptions at the initial screening stage. All policies and Preferred Sites were screened out at this stage.

The updated HRA broadly agrees with this HRA however, since the ‘People over Wind’ ruling, mitigation that might be required cannot be considered at the screening stage, therefore policies that were screened out before, now needed to be screened in for further consideration at Appropriate Assessment. As such, a number of policies and Preferred sites could not be ruled out as resulting in Likely Significant Effects on Habitat Sites. Increases in disturbance, changes in water quality and changes in atmospheric pollution levels were identified as the impact pathways most likely to have the potential to cause and adverse effect on the Integrity of a Habitats Site and were accordingly considered in combination with the screen in policies and Preferred Sites. The Appropriate Assessment recommended a number of amendments to the Mineral Local Plan

to ensure no adverse effect on site integrity from the screened in policies. The included some amendments/additions to policies, however overall, **it was not possible to reach a conclusion on whether the Essex Minerals Local Plan can avoid any adverse effects on integrity from the MLP either alone or in combination with other plans and projects**. This is because the issue of air quality impacts needs further advice from Natural England to support an assessment of effect. Specifically, it was considered that air quality impacts from individual Preferred Sites needed further assessment, as did S11: Access and Transportation.

## Essex Waste Local Plan (2017)

### Plan Owner/Competent Authority

- Essex County Council.

### Related Work HRA/AA

- Essex County Council and Southend-on-Sea Borough Council  
Replacement Waste Local Plan: Pre-submission – Habitat Regulations  
Assessment Screening Report (January 2016).

### Notes on Plan Documents

The Essex and Southend-on-Sea Waste Local Plan was adopted by Essex County Council on 11<sup>th</sup> July and Southend-on-Sea Borough Council on 19<sup>th</sup> October 2017.



## HRA Conclusions of Relevance to Basildon Local Plan HRA

The HRA concluded that the main potential for adverse effects caused by the allocated sites is likely to be from air pollution, water pollution or disturbance to birds. It stated that it should be possible to mitigate the effects identified.

Air pollution and bird disturbance not related to recreational actions have been ruled out of the Basildon Local Plan HRA and the Essex Waste Local Plan will therefore not contribute to likely significant effects or greater as a result of in-combination effects. In combination effects are therefore limited to water pollution, however the HRA concludes that such measures can be avoided through the implementation of control measures and as a result, the potential for in-combination effects between the plans as a result of water pollution is also considered negligible.

## Major Infrastructure Projects [See reference 41]

### Extensions to Existing and Creation of Offshore Wind Farms

Including:

- North Falls Offshore Wind Farm.
- Five Estuaries Offshore Wind Farm.
- Dudgeon and Sheringham Shoal Offshore Wind Farm Extensions.
- Galloper Offshore Wind Farm.

## Plan Owner/Competent Authority

- Planning Inspectorate.

## Related Work HRA/AA

- A plan level HRA has been completed by The Crown Estate for 7 proposed windfarm extensions around the coast of UK. The seven extensions are at:
  - Sheringham Shoal Offshore Wind Farm.
  - Dudgeon Offshore Wind Farm.
  - Greater Gabbard Offshore Wind Farm.
  - Galloper Offshore Wind Farm.
  - Rampion Offshore Wind Farm.
  - Gwynt y Môr Offshore Wind Farm.
  - Thanet Offshore Wind Farm.
- Offshore Wind Farm (OWF) Extension Plan-level Habitats Regulations Assessment: Report to Inform an Appropriate Assessment (RIAA), August 2019.
- Record of the Habitats Regulations Assessment Undertaken under Regulation 63 of The Conservation of Habitats and Species Regulation 2017 and regulation 28 of The Conservation of Offshore Marine Habitats and Species Regulation 2017: 2017 Offshore Wind Extensions Plan, August 2019.

## Notes on Project

In May 2018, The Crown Estate received eight applications for creation of/extensions to existing OFW developments within the Renewable Energy Zone. Seven of the eight extensions will now progress with project specific

environmental assessments and survey in advance of seeking planning consent. One project, Race Bank extension project, will not progress as the plan level HRA determined that it would not be possible to rule out an adverse effect on integrity of the SAC.

### **HRA Conclusions of Relevance to Basildon Local Plan HRA**

The Crown Estate concluded that the implementation of the Cable Route Protocol and the decision to amend the plan by not awarding right to Race Bank Extension is sufficient mitigation embedded in the Extensions Plan to avoid adverse effects on European Sites that may be affected by the plan. It is expected however that developers responsible for the extensions undertake project level HRAs and assess the effects referred to in the Extensions Plan Report to Inform an Appropriate Assessment and secure any necessary mitigation measures in consideration of the options identified in the RIAA. The need for a project level HRA is further justified as the AA identified a number of area where it has not been possible to conduct a meaningful assessment due to the lack of key project specific information. The project level HRA will take account of the detailed project design informed by site specific information, the distribution of the habitat features and their sensitivity to the proposed works.

The RIAA concluded that ‘with the exception of Race Bank Extension in relation to Inner Dowsing, Race Bank and North Ridge SAC, for which a significant or adverse effect cannot be excluded, there is sufficient scope and flexibility for Extension projects to apply measures to avoid adverse effects on site integrity once more certainty on project parameters and levels of effect are known through the individual project-level HRA required at that stage as a matter of law. Precise requirements and the nature of project specific mitigation will be determined as part of the project-level assessments’.

Where information has been found relating to project-level HRA, details are outlined below.

## **HRA Conclusions of Galloper Wind Farm Order or Relevance to Basildon Local Plan HRA**

The Galloper Wind Farm Order (February 2013) concluded that the only site for which there is likely significant effect is the Alder-Ore Estuary SPA and Ramsar site. This site was not included within the Basildon HRA and therefore there are no in combination effects.

## **Oikos Marine and South Side Development**

### **Plan Owner/Competent Authority**

- Planning Inspectorate.

### **Related Work HRA/AA**

- Not yet carried out.

### **Notes on Project**

This project consists of marine works and development of additional storage capacity at an existing liquid bulk harbour facility on Canvey Island in Essex. The project will provide additional marine loading arms and infrastructure on two of the existing operation jetties and include a capital dredge of the berth pocket to service Jetty 2. New storage tanks will provide an additional capacity of approximately 328,000m<sup>3</sup> of storage, and associated operational infrastructure.

## HRA Conclusions of Relevance to Basildon Local Plan HRA

The Environmental statement [See reference 42] scoping report concluded that based on current information the only potential impacts to relevant SPA species are from; noise and visual disturbance to birds using the foreshore as a result of construction, noise/visual/sediment disturbance from the capital dredge and operational impacts from an increase in the number of vessels servicing the facilities on each jetty. The scoping opinion (adopted May 2020) further identified potential impacts from dredging such as vibration, change in turbidity and vessel displacement.

Designated sites within 5km of the development site boundary and included within the Basildon Local Plan HRA include Thames Estuary and Marshes SPA and Ramsar and Benfleet and Southend Marshes SP and Ramsar.

## Bradwell B New Nuclear Power Station

### Plan Owner/Competent Authority

- Planning Inspectorate.

### Related Work HRA/AA

- Habitats Regulations Assessment Site Report for Bradwell, October 2010.
- Environmental Planning Consultant Support Bradwell B: Bradwell B Ground investigation Ecological Appraisal Report, February 2020. (A ground investigation HRA was included within this report).

## **Notes on Project**

A new nuclear power station is proposed to the south-east of Bradwell A nuclear power station, comprising two UK HPR1000 nuclear reactors, with associated buildings, structures and components.

## **HRA Conclusions of Relevance to Basildon Local Plan HRA**

The HRA screening Assessment identified the likely significant effects on sixteen European Sites as result of the Bradwell B Nuclear Power station proposal. The AA concluded that at the strategic level of the HRA, potential adverse effects resulting from water resources and quality, air quality, habitat and species loss and fragmentation/coastal squeeze and disturbance could not be rule out on Blackwater Estuary SPA and Ramsar, Colne Estuary SPA and Ramsar, Essex Estuaries SAC and Ramsar and Dengie SPA and Ramsar. Adverse effects could also not be ruled out the Mid-Essex SPA and Ramsar, for impacts on birds and water quality and the Abberton Reservoir, for impacts on birds.

A suite of avoidance and mitigation measures were recommended however ultimately a project level HRA will need to be conducted to conclude a 'no adverse effect on site integrity'.

The Bradwell B Ground Investigation (GI) EA report, including HRA, concluded that implementation of the precautionary mitigation measures included within the HRA, the proposed GI and load testing are not predicted to result in adverse effects on the Dengie SPA and Ramsar or the Blackwater Estuary SPA and Ramsar.

## Longfield Solar Farm

### Plan Owner/Competent Authority

- Planning Inspectorate.

### Related Work HRA/AA

- Not yet available.

### Notes on Project

A Solar Farm proposal across a proposed site in Essex, including solar photovoltaic panels (PV) generating panels, on-site energy storage facilities and grid connection infrastructure. The scheme is located approximately 6km north west of Chelmsford.

### HRA Conclusions of Relevance to Basildon Local Plan HRA

The Environmental Impact Assessment Scoping Report [See reference 43] has identified designated sites within 10km of the site and non-statutory sites within 2km of the Site. Designated sites included in the Basildon HRA include Essex estuaries SAC and Mid-Essex Coast SPA and Ramsar. Potential effects from construction and decommission were highlighted including habitat loss (directly and fragmentation), direct disturbance of and harm to animals, spread of invasive species and indirect impacts such as watercourse pollution. Effects from operation also included disturbance or displacement of species, lighting of sensitive habitats and management and maintenance of on-site and adjacent habitats.

## A12 Chelmsford to A120 Widening Scheme

### Plan Owner/Competent Authority

- Planning Inspectorate.

### Related Work HRA/AA

- A draft Stage 1 assessment (in preparation) has been undertaken in accordance with DMRB LA 115 (Highways England, 2020). A summary of the conclusion was provided in the Environmental scoping report.

### Notes on Project

This scheme comprises improvements to the A12 between junction 19 (Boreham) and junction 25 (Marks Tey), approximately 24km long. Improvements include widening the A12 to three lanes throughout with a bypass between junction 22 and 23 and a second between junctions 24 and 25. Safety improvements are also proposed.

### HRA Conclusions of Relevance to Basildon Local Plan HRA

The Environmental Scoping Report (2020) [See reference 44] provides information regarding ecological impacts on designated European sites. European sites included within the scoping report and also listed in the Basildon HRA includes Blackwater Estuary SPA and Ramsar, Essex Estuaries SAC, Colne Estuary SPA and Ramsar, Abberton Reservoir SPA and Ramsar, Crouch and Roach Estuaries SPA and Ramsar and Stour and Orwell Estuaries SPA and Ramsar. Impact pathways as a result of the proposal with the potential to impact upon designated sites and species include habitat



loss/fragmentation/modification, mortality and injury of species, species disturbance e.g. noise and light, air quality changes, hydrological changes to surface and groundwater and introduction and spread of invasive non-native species.

The Environmental Scoping Report confirmed that the draft stage 1 HRA concluded that no likely significant effects on any European sites are anticipated, when considered alone or in combination with other plans and projects, 'however until this document is finalised following completion of design work for the scheme, it is proposed to include the sites in the scope of assessment'.

## Luton Airport Expansion

### Plan Owner/Competent Authority

- Planning Inspectorate.

### Related Work HRA/AA

- London Luton Airport Limited (LLAL): Environmental Impact Assessment Scoping Report, March 2019. Including Habitats Regulations Assessment (HRA) Screening [\[See reference 45\]](#).

### Notes on Project

London Luton Airport Ltd proposed to increase the capacity of the airport to 32 million passenger per annum. This will increase the airports annual air transport movements (ATMs) from around 135,000 in 2017 to c. 212,500 by around 2038. The current consented capacity equates to approximately 140,000 ATMs.

## **HRA Conclusions of Relevance to Basildon Local Plan HRA**

The draft Habitats Regulations Assessment Screening Report considered the Proposed Development and European Sites within 30km. Based on information available at the time, no pathway for effect on any such European Site has been identified and thus no effect on such sites is predicted to occur. The HRA will be updated as technical assessment and models for the project are finalised.

## **Thurrock Flexible Generation Plant**

### **Plan Owner/Competent Authority**

- Planning Inspectorate.

### **Related Work HRA/AA**

- Thurrock Flexible Generation Plant: Habitats Regulation Assessment Report, August 2021.

### **Notes on Project**

The proposed development comprises the construction and operation of Gas Reciprocating engines with up to 600 MW electrical capacity and Battery Storage with up to 150MW electrical capacity.

## **HRA Conclusions of Relevance to Basildon Local Plan HRA**

The screening stage identified water quality and hydrological impacts on the Thames Estuary and Marshes SPA and Ramsar and noise and visual disturbance from construction and use of the causeway on the qualifying features of the Thames Estuary and Marshes SPA/Ramsar. With proposed mitigation, the Appropriate Assessment concluded that there would be no adverse significant effects on the integrity of the Thames Estuary and Marshes SPA and Ramsar.

## **M25 Junction 28 Improvement Scheme**

### **Plan Owner/Competent Authority**

- Planning Inspectorate.

### **Related Work HRA/AA**

- Highways England M25 Junction 28 Improvement Scheme TR010029 6.9: Habitats regulation Assessment, No significant effects report.

### **Notes on Project**

M25 junction 28 was identified as a key junction requiring improvement to address congestion and safety issues. The scheme is located between Brentwood and Romford, on the border of London borough of Havering and Brentwood Borough Council.

## **HRA Conclusions of Relevance to Basildon Local Plan HRA**

HRA Stage: Screening report has identified that there are no likely significant effects on European Sites as a result of the Scheme.

### **The London Resort**

#### **Plan Owner/Competent Authority**

- Planning Inspectorate.

#### **Related Work HRA/AA**

- The London Resort: Appendix 12.4, Shadow Habitats Regulations Assessment, December 2020.

#### **Notes on Project**

The proposal includes a leisure and entertainment resort including a theme park, hotels, bars, restaurants, business space, training academy, monorail and associated infrastructure works.

## **HRA Conclusions of Relevance to Basildon Local Plan HRA**

Potential exists for likely significant effects on the Thames Estuary and Marshes and Medway Marshes SPA and Ramsar Sites. However, the Appropriate Assessment concluded that adverse effects from the proposed development will

not occur on the integrity of either the Thames Estuary and Marshes or Medway Estuary and Marshes SPA and Ramsar Sites, either alone or in combination with other projects.

# The Lower Thames Crossing

## Plan Owner/Competent Authority

- Planning Inspectorate.

## Related Work HRA/AA

- Details included within the Peterbrett, Lower Thames Crossing, Route Consultation Response – PBA Preliminary Review, March 2016 [See reference 46].

## Notes on Project

The Lower Thames Crossing will be a new road crossing connecting Kent, Thurrock and Essex, c. 14.5 miles long.

## HRA Conclusions of Relevance to Basildon Local Plan HRA

An HRA Screening Matrix conducted in 2016 identified a likelihood of impacts on the Thames Estuary and Marshes SPA and Ramsar however an Appropriate Assessment has not yet been conducted.

## Perry's Farm, Isle of Grain, Kent

### Plan Owner/Competent Authority

- Planning Inspectorate.

### Related Work HRA/AA

- Not yet carried out.

### Notes on Project

Proposed hazardous waste management facility at Perry's Farm on the Isle of Grain, Kent. Project information drawn from request for EIA Scoping Opinion [See reference 47].

### HRA Conclusions of Relevance to Basildon Local Plan HRA

Proposed waste management facility for the disposal of hazardous waste by landfill and the treatment of hazardous waste at a site on the Isle of Grain located approximately 500m south of the River Thames. The request for an EIA Scoping Opinion identifies the possibility of indirect impacts on designated biodiversity sites in relation to noise, air quality, dust and hydrology. An HRA screening assessment will be conducted which will include the potential for likely significant effects on Thames Estuary and Marshes SPA and Ramsar site. There is a possibility that the loss of land might affect this SPA/Ramsar as a result of loss of offsite functionally linked land, however effects will remain uncertain until a HRA is carried out. Furthermore, the loss of offsite functionally linked land as a result of the Basildon Borough Local Plan was concluded not to

result in adverse effects on the integrity of the Thames Estuary and Marshes SPA and Ramsar either alone or in-combination.

# Tilbury Gas Fired Power Station, Thurrock

## Plan Owner/Competent Authority

- Planning Inspectorate.

## Related Work HRA/AA

- Not yet carried out.

## Notes on Plan Documents

RWE withdrew the application for the power station in November, 2018.

RWE npower is proposing to develop a new combined cycle gas turbine (CCGT) power station on the Tilbury Power Station site in Thurrock. The proposed new gas station would be known as Tilbury C and would replace the generating capacity of the currently operational Tilbury B coal-fired power station [See reference 48].

## HRA Conclusions of Relevance to Basildon Local Plan HRA

The site is 2.2km from the Thames Estuary and Marshes SPA and Ramsar site and includes land which is known to support important populations of avocet and hen harrier (for which Thames Estuary SPA is designated). Potential types of in-combination effects on Thames Estuary and Marshes SPA and Ramsar

site are uncertain until an HRA is carried out but may include loss of supporting habitat for internationally designated bird populations, noise, air quality, dust and hydrology. In particular, there is a possibility that the loss of land might affect this SPA/Ramsar as a result of loss of offsite functionally linked land, however effects will remain uncertain until a HRA is carried out. Furthermore, the loss of offsite functionally linked land as a result of the Basildon Borough Local Plan was concluded not to result in adverse effects on the integrity of the Thames Estuary and Marshes SPA and Ramsar either alone or in-combination.

## Tilbury 2

### Plan Owner/Competent Authority

- Planning Inspectorate.

### Related Work HRA/AA

- Habitats Regulations Assessment for An Application Under The Planning Act 2008, Development Title: Port of Tilbury (Expansion), January 2019.

### Notes on Plan Documents

Tilbury 2 plans to be a new port facility acting alongside the existing Port of Tilbury. This will involve the extension of existing jetty facilities and the dredging of berth pockets in the River Thames as well as land works and facilities for: a 'Roll-on / Roll-Off' terminal for importing and exporting containers on road trailers; a facility for importing and processing bulk construction materials; and area of external storage for a variety of goods, e.g. imported cars.



## **HRA Conclusions of Relevance to Basildon Local Plan HRA**

The HRA concluded that the construction and operation of the development, with all the avoidance and mitigation measures implemented in full, will not adversely affect the integrity of the Thames Estuary and Marshes SPP and Ramsar site or the functionally-linked land associated with these sites alone or in-combination with any other project or plans. The Secretary of State agreed that there was no requirement to progress to Stages 3 and 4 of the HRA process.

## Appendix C

### Screening of Likely Significant Effects

#### Chapter 6: Achieving Sustainable Development

##### SD1 – Strategic Approach to Sustainable Development

Significant effects uncertain

#### Potential Likely Significant Effects

- Reduced water quality – treated wastewater or combined sewer overflows.
- Increased recreational pressure.
- Loss of offsite functionally linked land.

#### Reasons for Potential Likely Significant Effects

##### Categories

- Category 7.
- Category 9.
- Category 13.

## Discussion

This Policy establishes the total amounts of residential development to be provided in the Borough.

Reasons for identifying the indicated types of likely significant effects from residential development within the Borough are discussed in Chapter 4.

## SD2 – The Settlement Hierarchy and Distribution of Growth

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

Policy establishes the broad distribution of the development specified by Policy SD1, directing most development within or adjacent the three main towns.

The locations for development are specified by other policies within the Local Plan which have been separately assessed below. Since there is nothing to suggest that the amounts of development specified by this policy could not be accommodated without likely significant effects no matter where they took place within the Borough, this policy is screened out on the basis that the potential effects of development are more appropriately assessed through the HRA of the subordinate policies.

## SD3 – Designated Neighbourhood Areas

Significant effects uncertain

### Potential Likely Significant Effects

- Reduced water quality – treated wastewater or combined sewer overflows.
- Increased recreational pressure.
- Increased flood risk – impermeable surfaces.

### Reasons for Potential Likely Significant Effects

#### Categories

- Category 7.
- Category 9.

#### Discussion

Policy sets out the ways in which the Council will support neighbourhood planning bodies in the preparation of their Neighbourhood Plans. Policy SD3 allocates minimum housing targets of 1,350 homes and 39 homes for Neighbourhood Plan Areas Bowers Gifford and North Benfleet and Ramsden Bellhouse, respectively – to be delivered through Neighbourhood Plans. Until the locations are known within the Neighbourhood Plan Areas it is not possible to rule out the potential for significant effects. The Neighbourhood Plan Areas Neighbourhood Plans will be subject the HRA.

## **Appendix C** Screening of Likely Significant Effects

European sites within ZOI of the Neighbourhood Plan Areas are Blackwater Estuary SPA and Ramsar, Essex Estuary SAC, Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA and Ramsar site and Thames Estuary and Marshes SPA and Ramsar site. In the absence of mitigation, it is assumed that residential development in the Neighbourhood Plan Areas could contribute to increased recreation pressure on all of these European sites, in-combination with other residential development in Basildon Borough and elsewhere.

The Neighbourhood Plan Areas contain areas of flood risk, including Flood Zone 3 (1 in a 100 or greater chance of river flooding each year). Although it is likely that these areas will be avoided, this cannot be ruled out at this stage. Nevertheless, development is likely to occur on greenfield land potentially creating impermeable surfaces and thereby increase surface drainage rates. This has the potential to increase flood risk at downstream European sites, in-combination with other greenfield development proposed by the Local Plan.

## SD4 – Presumption in Favour of Sustainable Development

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

While this policy sets out a positive approach to development, the comprehensive policy framework provided by the Local Plan should ensure that development proposals are governed by more the more specific policies in the remainder of the Local Plan, the effects of which have been separately considered in the HRA.

## Chapter 7: Building a Strong, Competitive Economy

### E1 – Economic Growth Strategy

Significant effects not likely

#### Potential Likely Significant Effects

- None.

#### Reasons for Potential Likely Significant Effects

##### Categories

- N/A.

##### Discussion

This policy seeks to support new jobs through provision of additional employment land, as well as providing broad support for economic growth.

Employment sites within the Borough boundary will avoid direct habitat loss or damage to European sites since these are located outside of the Borough boundary.

Some sites also have higher fluvial flood risk than others and directing more development to these could result in a loss of flood storage and increase flood



## **Appendix C** Screening of Likely Significant Effects

risk downstream at European sites; this is assessed via the HRA Screening of policies E5-E8 below and development could not occur through this strategic policy alone.

In light of the type of development and the distance between potential development sites and European sites, other types of likely significant effect are not judged likely.

Recommendation: provision of additional employment land should be phased to ensure that it is aligned with the provision of supporting infrastructure (HRA Screening conclusion is not dependent on adoption of this recommendation).

## E2 – Existing Employment Areas

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

Policy defines the existing employment areas to which employment development for existing employment areas specified by Policy E1 will be directed in the first instance.

Employment sites within the Borough boundary will avoid direct habitat loss or damage to European sites since these are located outside of the Borough boundary.

In light of the type of development and the distance between potential development sites and European sites, other types of likely significant effect are not judged likely.

## E3 – Ford Dunton Campus

Significant effects uncertain

### Potential Likely Significant Effects

- Increased flood risk.

### Reasons for Potential Likely Significant Effects

#### Categories

- Category 7.

#### Discussion

The policy identifies a site for employment development at Ford Dunton Campus.

The site is not within Flood Zone 3 (1 in a 100 or greater chance of river flooding each year) therefore it is judged that development here would not be likely to increase flood risk at downstream European sites. Development on this location could create impermeable surfaces and thereby increase surface drainage rates. This has the potential to increase flood risk at downstream European sites, in-combination with other greenfield development proposed by the Local Plan.

## E4 – Land West of Gardiners Lane South

Significant effects uncertain

### Potential Likely Significant Effects

- Increased flood risk.

### Reasons for Potential Likely Significant Effects

#### Categories

- Category 7.

#### Discussion

The policy identifies a site for employment development on the northern edge of Basildon town, in accordance with the broad distribution defined by Policy E4.

The site is not within Flood Zone 3 (1 in a 100 or greater chance of river flooding each year) therefore it is judged that development here would not be likely to increase flood risk at downstream European sites. Development on this greenfield location could create impermeable surfaces and thereby increase surface drainage rates. This has the potential to increase flood risk at downstream European sites, in-combination with other greenfield development proposed by the Local Plan.

## E6 – Land East of Burnt Mills

Significant effects uncertain

### Potential Likely Significant Effects

- Increased flood risk.

### Reasons for Potential Likely Significant Effects

#### Categories

- Category 7.
- Category 9.

#### Discussion

The policy identifies a site for employment development on the north east edge of Basildon town, in accordance with the broad distribution defined by Policy E4.

The site contains a small area of Flood Zone 3 (1 in a 100 or greater chance of river flooding each year). Furthermore, development on this greenfield location could create impermeable surfaces and thereby increase surface drainage rates. This has the potential to increase flood risk at downstream European sites, in-combination with other greenfield development proposed by the Local Plan.

## E6 – Rural Enterprise Sites

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

The policy retains existing rural enterprise sites in Basildon to be used for B1-B8 uses. As such development is to be guided towards existing areas used for business and development in these locations is not considered likely to be capable of significant effects on the European sites beyond the Borough boundary.

## E8 – Untidy Industry Zone, Burnt Mills

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

The policy allows for development of untidy industry uses within in the Harvey Road and Archers Field area of the Burnt Mills Industrial Estate with proposals within the existing industrial areas to be assessed on as per their likely effects on nearby uses and the availability of sites within the Untidy Industry Zone. Untidy industry is not to be permitted outside of identified employment areas.

## E8 – Locations for Employment Development

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

The policy steers class-B development and employment generating sui generis uses towards allocated Employment Areas or Rural Enterprise Sites in Basildon. Employment development in these locations is not considered likely to give rise to significant effects on the European sites beyond the Borough boundary. The policy also requires that development within these areas does not contribute to pollution or disturbance while development of this type is only to be supported if it does not result in adverse impacts upon environmental quality. Individual projects would be subject to project level HRA, if relevant.



## E9 – Non B Class Uses in Employment Areas

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

The policy addresses non B class uses in employment areas in Basildon. As such the policy itself would not lead to a greater level of development within the Borough but will rather support non-B class uses where the relevant criteria have been satisfied.

## E10 – Aligning Skills and Jobs

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

The policy encourages developments for employment use to include improvements to help support the betterment of skills levels amongst local residents. The policy is therefore not expected to lead to development in itself.

## Chapter 8: Ensuring the Vitality of Town Centres

### R1 – Retail and Commercial Leisure Strategy

Significant effects not likely

#### Potential Likely Significant Effects

- None.

#### Reasons for Potential Likely Significant Effects

##### Categories

- N/A.

##### Discussion

Policy establishes the total amounts of retail, leisure and other main town centre use development to be provided in the Borough. The policy also prioritises development in identified existing centres (primarily Basildon, Laindon, Pitsea and Wickford) rather than out of centre locations.

Retail and leisure sites within the Borough boundary will avoid direct habitat loss or damage to European sites since these are located outside of the Borough boundary.

## **Appendix C** Screening of Likely Significant Effects

Some locations have higher fluvial flood risk than others and directing more development to these could result in a loss of flood storage and increase flood risk downstream at European sites; this is assessed via the HRA Screening of policies R2-R6 below and development could not occur through this strategic policy alone.

In light of the type of development and the distance between potential development sites and European sites, other types of likely significant effect are not judged likely.

## R2 – Basildon Town Centre Regeneration

Significant effects uncertain

### Potential Likely Significant Effects

- Changes in water quantity and quality – e.g. reduced water quality via treated wastewater or combined sewer overflows.
- Increased recreational pressure.

### Reasons for Potential Likely Significant Effects

#### Categories

- Category 7.
- Category 9.

#### Discussion

The policy identifies Basildon town centre as the primary focus for all major retail and leisure development in the Borough, in accordance with the broad distribution defined by Policy R1. It further provides for development of 1,500-2,000 units, a further education college, business, community and open space uses.

As explained under Policy R1, it is judged that the only potential likely significant effect from retail development in the Borough's town centres is increased downstream flood risk if they are built in flood storage areas (assumed to be

## Appendix C Screening of Likely Significant Effects

Flood Zone 3). Basildon town centre is not within Flood Zone 3 therefore this risk is screened out.

In addition to retail and leisure development, Policy R2 also directs large scale residential development to Basildon town centre. In line with the other strategic housing allocation policies, consideration is therefore also given to potential likely significant effects in relation to changes in water quantity and quality or increased recreation pressure.

AWS has indicated that infrastructure and/or treatment upgrades may be required to Basildon WRC and to the foul sewerage network to serve residential growth in Basildon urban area. Reduced water quality effects cannot, therefore, be ruled out in the absence of mitigation.

Development sites proposed as part of this policy are located within the Zone of Influence (ZOI) of the following European sites: Thames Estuary and Marshes SPA and Ramsar site, the closest of these being Thames Estuary and Marshes approximately 6.6km to the south. In the absence of mitigation, it is assumed that residential development at this site could contribute to increased recreation pressure on all of these European sites, in-combination with other residential development in Basildon Borough and elsewhere.

Recommendation: In recognition of the fact that this policy proposes residential development as well as retail/town centre developments, development must be supported by sufficient infrastructure, including any improvements required to the drainage network or water recycling centre (HRA Screening conclusion is not dependent on adoption of this recommendation).

## R3 – Laindon Town Centre Regeneration

Significant effects uncertain

### Potential Likely Significant Effects

- Reduced water quality – treated wastewater or combined sewer overflows.
- Increased recreation pressure.

### Reasons for Potential Likely Significant Effects

#### Categories

- Category 7.
- Category 9.

#### Discussion

The policy identifies Laindon town centre as a focus for regeneration via a mixed-use scheme providing retail, at least 224 residential units and a mix of other town centre uses in accordance with the broad distribution defined by Policy R1.

As explained under Policy R1, it is judged that the only potential likely significant effect from retail development in the Borough's town centres is increased downstream flood risk if they are built in flood storage areas (assumed to be Flood Zone 3). Laindon town centre is not within Flood Zone 3 therefore this risk is screened out.

## **Appendix C** Screening of Likely Significant Effects

In relation to the proposed residential development, consideration is also given to potential likely significant effects in relation to reduced water quality or increased recreation pressure.

AWS has indicated that infrastructure and/or treatment upgrades may be required to Basildon WRC and to the foul sewerage network to serve residential growth in Basildon urban area. Reduced water quality effects cannot, therefore, be ruled out in the absence of mitigation.

Development sites proposed as part of this policy are located within the Zone of Influence (ZOI) of the following European sites: Thames Estuary and Marshes SPA and Ramsar site, approximately 7.8km to the south. In the absence of mitigation, it is assumed that residential development at this site could contribute to increased recreation pressure on this European sites, in-combination with other residential development in Basildon Borough and elsewhere.

Recommendation: In recognition of the fact that this policy proposes residential development as well as retail/town centre developments, housing development must be supported by sufficient infrastructure, including any improvements required to the drainage network or water recycling centre (HRA Screening conclusion is not dependent on adoption of this recommendation).



## R4 – Pitsea Town Centre Regeneration

Significant effects not likely

### Potential Likely Significant Effects

- Reduced water quality via treated wastewater or combined sewer overflows.

### Reasons for Potential Likely Significant Effects

#### Categories

- Category 4.

#### Discussion

The policy identifies Pitsea town centre as a focus for regeneration via development of retail and other town centre uses in accordance with the broad distribution defined by Policy R1.

As explained under Policy R1, it is judged that the only potential likely significant effect from retail development in the Borough's town centres is increased downstream flood risk if they are built in flood storage areas (assumed to be Flood Zone 3). Pitsea town centre is not within Flood Zone 3 therefore this risk is screened out.

## R5 – Wickford Town Centre Regeneration

Significant effects uncertain

### Potential Likely Significant Effects

- Changes in water quantity and quality – e.g. reduced water quality via treated wastewater or combined sewer outflows.
- Increased recreation pressure.

### Reasons for Potential Likely Significant Effects

#### Categories

- Category 7.
- Category 9.

#### Discussion

The policy identifies Wickford town centre as a focus for regeneration via development of retail and other town centre uses and residential units in accordance with the broad distribution defined by Policy R1.

As explained under Policy R1, it is judged that the only potential likely significant effect from retail development in the Borough's town centres is increased downstream flood risk if they are built in flood storage areas (assumed to be Flood Zone 3). A very small proportion of Wickford town centre lies within Flood Zone 3 therefore this risk is screened out on the basis that flood storage areas could be avoided through appropriate layout within the town centre.

## Appendix C Screening of Likely Significant Effects

In relation to the proposed residential development, consideration is also given to potential likely significant effects in relation to reduced water quality or increased recreation pressure.

AWS has indicated that infrastructure and/or treatment upgrades may be required to Wickford WRC and to the foul sewerage network to serve residential growth in Wickford urban area. Reduced water quality effects cannot, therefore, be ruled out in the absence of mitigation.

Development sites proposed as part of this policy are located within the Zone of Influence (ZOI) of the following European sites: Blackwater Estuary SPA and Ramsar, Essex Estuaries SAC and Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA and Ramsar site, the closest of these being Crouch and Roach Estuaries approximately 4.0km to the east. In the absence of mitigation, it is assumed that residential development at this site could contribute to increased recreation pressure on these European sites, in-combination with other residential development in Basildon Borough and elsewhere.

Recommendation: In recognition of the fact that this policy proposes residential development as well as retail/town centre developments, housing development must be supported by sufficient infrastructure, including any improvements required to the drainage network or water recycling centre (HRA Screening conclusion is not dependent on adoption of this recommendation).

## R6 – Billericay Town Centre Enhancement

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

The policy identifies Billericay town centre as a focus for regeneration via development of a local foodstore, provision of a street market, sustainable transport infrastructure and safeguarding of existing town centre uses in accordance with the broad distribution defined by Policy R1.

As explained under Policy R1, it is judged that the only potential likely significant effect from retail development in the Borough's town centres is increased downstream flood risk if they are built in flood storage areas (assumed to be Flood Zone 3). Billericay town centre is not within Flood Zone 3 therefore this risk is screened out.

## R7 – Town Centre Boundaries

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

Policy defines town centre boundaries within which town centre policies apply. As such it does not provide for development.

## R8 – Local Centres

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

Policy resists loss of A1 (shops) use in Local Centres at ground floor level whilst allowing a wider range of uses, including residential on upper floors. It also allows for the creation of new Local Centres where necessary as part of larger site allocations. As such it does not provide for new development itself.

## R9 – Out of Town Retail Areas

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

Policy identifies existing out of centre shopping areas in the Borough and resists extension of these in favour of town centre locations. As such it does not provide for development.

## R10 – Festival Leisure Park and Surroundings

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

Policy identifies resists extension of a large, existing out of centre shopping area within the Basildon urban area in favour of town centre locations. As such it does not provide for development but instead helps to steer retail development to existing Town Centres.



## R11 – Locations for Hotel/Visitor Accommodation

Significant effects uncertain

### Potential Likely Significant Effects

- Changes in water quality.
- Increased flood risk.

### Reasons for Potential Likely Significant Effects

#### Categories

- Category 7.
- Category 9.

#### Discussion

Policy provides for the development of a full service hotel ancillary to Basildon golf course.

Capacity in Basildon WRC and the local sewerage network to serve this development are uncertain and in the absence of mitigation, reduced water quality effects cannot be ruled out in-combination with the residential development proposed by the Local Plan.

## **Appendix C** Screening of Likely Significant Effects

The site is not within Flood Zone 3 (1 in a 100 or greater chance of river flooding each year) therefore it is judged that development here would not be likely to increase flood risk at downstream European sites. Development on this greenfield location could create impermeable surfaces and thereby increase surface drainage rates. This has the potential to increase flood risk at downstream European sites, in-combination with other greenfield development proposed by the Local Plan.

## R14 – Locations for Town Centre Uses

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

The policy seeks to guide retail use development towards the town centre areas of the Borough through the implementation of a sequential approach. Retail development at out of centre locations is to be prioritised at existing out of centre shopping areas or leisure parks. As such, it encourages development to be sited away from the European sites which surround the Borough.

## R13 – Existing Local Shops

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

The policy addresses the change of use of existing shops or buildings last used as such. It relates to the qualitative criteria for this change of use.

## R14 – Hot Food Takeaways

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

The policy addresses the criteria by which hot food takeaways might be provided in town centre and local centre locations. The policy in itself would not lead to development which might impact the surrounding European sites.

## R15 – Betting Office

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

The policy sets criteria for the permitting of betting offices in the Borough. In itself, it is not expected to result in the provision of new development in the Borough.

## Chapter 9: Promoting Sustainable Transport

### T1 – Transport Strategy

Significant effects not likely

#### Potential Likely Significant Effects

- None.

#### Reasons for Potential Likely Significant Effects

##### Categories

- N/A.

##### Discussion

Junction improvements on the A127 within Basildon Borough would be remote from European sites as these are located outside the Borough boundary. The more generic transport improvements supported by the policy would be delivered by other organisations such as Network Rail, Highways England or Essex County Council and would, if required, be subject to project level HRA.

## T2 – Improvements to Highway Infrastructure

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

Listed carriageway improvements within Basildon Borough would be remote from European sites as these are located outside the Borough boundary and would, if required, be subject to project level HRA.



## T3 – Improvements to Footpaths, Cycling and Bridleway Infrastructure

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

Policy commits to working with partners including Essex County Council to deliver improvements to footpath and cycling infrastructure within the Borough. All development within the Borough is remote from the European sites which lie outside of its boundary, avoiding the potential for direct damage or loss.

## T4 – Improvements to Public Transport Infrastructure and Services

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

Policy commits to working with partners including Essex County Council and bus service providers to deliver improvements to the public transport network and expects development proposals to support establishment of new public transport services. All development within the Borough is remote from the European sites which lie outside of its boundary, avoiding the potential for direct damage or loss.

## T5 – Transport Improvement Areas

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

Policy safeguards land for transport improvements specified in policies T2, T3 and T4 but does not itself provide for development.

## T6 – Managing Congestion

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

The policy requires the production of Transport Assessments or Transport Statements to understand the implications of developments that would generate significant levels of traffic. It requires development proposals to incorporate appropriate mitigation measures to address any adverse impacts on the transport network. Where the residual impacts are severe development is not be granted planning permission. As such the policy will not lead to development in itself.

## T7 – Safe and Sustainable Access

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

The policy seeks to improve local transport safety and access of sustainable modes of transport. It requires the production of Travel Plans, setting out how sustainable travel behaviours will be encouraged where traffic generating development is proposed. Links to sustainable and active modes of transport are to be provided safely and in close proximity to new developments. As such the policy will not lead to development in itself.

## T8 – Parking Standards

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

The policy addresses the provision of parking for cars and bicycles in the Borough in the context of the sustainability of the site and the level of accessibility of public transport at the site. The level of parking to be provided is to be guided by further policy (Essex Vehicle Parking Standards) and as such policy T8 will not in itself result in further development or any potential increase in traffic in the Borough.

## T9 – Town Centre, Employment Areas and Railway Station Parking Provision

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

This policy seeks to increase parking provision within town centres, employment areas and at the Borough's railway stations and will not in itself result in further development or any potential significant affect.

## T10 – Electric Vehicle Charging Infrastructure Standards

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

This supports the NPPF requirement to move to a low carbon future by providing the necessary infrastructure for increasing the use of electric vehicles. It will not in itself result in further development or any potential significant affect.



## T11 – Access for Servicing

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

The policy addresses adequate sizing of and the appropriate location of development which require access by HGVs on a regular basis on main or secondary distributor routes as to avoid increases in congestion in the Borough. The policy also addresses the design of all other developments in terms of access by waste collection vehicles and delivery vehicles. The policy is not expected to result in a level of development in itself.

## Chapter 10: Communications Infrastructure

### COM1 – Digital Communications Infrastructure Strategy

Significant effects not likely

#### Potential Likely Significant Effects

- None.

#### Reasons for Potential Likely Significant Effects

##### Categories

- N/A.

##### Discussion

Whilst this policy supports the development of communications infrastructure, this would be within the Borough and thus remote from European sites.

## COM2 – Determining Applications for Digital Telecommunications Equipment

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

The policy requires that telecommunications equipment is designed and sited to minimise detrimental impacts upon various elements including visual and residential amenity of neighbouring properties as well as seeking opportunities for sharing existing masts.

## COM3 – Digital Communications Infrastructure in New Residential and Commercial Developments

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

The policy provides that new development in the Borough is to provide for new or improved existing communications infrastructure. The policy in itself is not expected to result in new development in the Borough.

# Chapter 11: Delivering a Wide Choice of High Quality Homes

## H1 – Housing Strategy

Significant effects uncertain

### Potential Likely Significant Effects

- Change in water quantity and quality – e.g. via treated wastewater or combined sewer overflows.
- Increased recreation pressure.

### Reasons for Potential Likely Significant Effects

#### Categories

- Category 7.
- Category 9.
- Category 13.

#### Discussion

Together with Policy SD1, this Policy establishes the total amounts of residential development to be provided in the Borough.

## **Appendix C** Screening of Likely Significant Effects

Reasons for identifying the indicated types of likely significant effects from residential development within the Borough are discussed in Chapters 4 and 5.

## H2 – Specialist Accommodations for Older People and Disabled Adults

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

Policy ensures that an appropriate proportion of the residential development specified by policy H1 will be for older people and people with disabilities but does not itself provide for additional development.

## H3 – Gypsy, Traveller and travelling Showpeople Accommodation Strategy

Significant effects uncertain

### Potential Likely Significant Effects

- Change in water quantity and quality – e.g. via treated wastewater or combined sewer overflows.
- Increased recreation pressure.

### Reasons for Potential Likely Significant Effects

#### Categories

- Category 7.
- Category 9.
- Category 13.

#### Discussion

Policy sets out the number of additional pitches to be provided for Gypsies, Travellers and Travelling Showpeople.

Reasons for identifying the indicated types of likely significant effects from residential development within the Borough are discussed in Chapters 4 and 5.



## H4 – New Gypsy and Traveller Pitch and and Travelling Showpeople Plot Provision

Significant effects uncertain

### Potential Likely Significant Effects

- Change in water quantity and quality – e.g. via treated wastewater or combined sewer overflows.
- Increased recreation pressure.

### Reasons for Potential Likely Significant Effects

#### Categories

- Category 7.
- Category 9.
- Category 13.

#### Discussion

Policy sets out the location of new pitches to be provided for gypsies, travellers and travelling show people. Policy allocates 3 new pitches for Gypsies and Travellers and 3 additional plots for Travelling Showpeople and notes provision the be delivered through other site allocation policies, notably Policy H5 and E6.

Reasons for identifying the indicated types of likely significant effects from residential development within the Borough are discussed in Chapters 4 and 5.

## H5 – Land West of Gardiners Lane South, Basildon

Significant effects uncertain

### Potential Likely Significant Effects

- Change in water quantity and quality – e.g. via treated wastewater or combined sewer overflows.
- Increased recreation pressure.

### Reasons for Potential Likely Significant Effects

#### Categories

- Category 7.
- Category 9.

#### Discussion

The policy identifies a site for residential, gypsy and traveller, and employment development on the northern edge of Basildon town, in accordance with the broad distribution defined by Policy SD2.

AWS has indicated that capacity is available in Basildon WRC and the local sewerage network to serve the proposed level of residential growth at this site. However, this is on an individual site basis and the cumulative impact of all of the proposed sites may require enhancement to capacity, therefore reduced water quality effects cannot be ruled out in the absence of mitigation.

## **Appendix C** Screening of Likely Significant Effects

Development sites proposed as part of this policy are located within the Zone of Influence (ZOI) of the following European sites: Blackwater Estuary SPA and Ramsar and Essex Estuary SAC, which lies 21km to the north-east. In the absence of mitigation it is assumed that residential development at this site could contribute to increased recreation pressure on all of these European sites, in-combination with other residential development in Basildon Borough and elsewhere.

The site is not within Flood Zone 3 (1 in a 100 or greater chance of river flooding each year) therefore it is judged that development here would not be likely to increase flood risk at downstream European sites. Development on this greenfield location could create impermeable surfaces and thereby increase surface drainage rates. This has the potential to increase flood risk at downstream European sites, in-combination with other greenfield development proposed by the Local Plan.

## H6 – Land North of Dry Street, Basildon

Significant effects uncertain

### Potential Likely Significant Effects

- Reduced water quality – treated wastewater or combined sewer overflows.
- Increased recreation pressure.
- Increased flood risk – impermeable surfaces.

### Reasons for Potential Likely Significant Effects

#### Categories

- Category 7.
- Category 9.

#### Discussion

The policy identifies a site for residential development on the southern edge of Basildon town, in accordance with the broad distribution defined by Policy SD2.

AWS has indicated that capacity is available in Basildon WRC but that upgrades may be required to the local sewerage network to serve the proposed level of residential growth at this site. However, this is on an individual site basis and the cumulative impact of all of the proposed sites may require enhancement to capacity, therefore reduced water quality effects cannot be ruled out in the absence of mitigation.

## **Appendix C** Screening of Likely Significant Effects

Development sites proposed as part of this policy are located within the ZOI of the following European sites: Thames Estuary and Marshes SPA and Ramsar site at approximately 5.3km to the south. In the absence of mitigation it is assumed that residential development at this site could contribute to increased recreation pressure on all of these European sites, in-combination with other residential development in Basildon Borough and elsewhere.

The site is not within Flood Zone 3 (1 in a 100 or greater chance of river flooding each year) therefore it is judged that development here would not be likely to increase flood risk at downstream European sites. Development on this greenfield location could create impermeable surfaces and thereby increase surface drainage rates. This has the potential to increase flood risk at downstream European sites, in-combination with other greenfield development proposed by the Local Plan.

## H7 – Land North of London Road, Vange

Significant effects uncertain

### Potential Likely Significant Effects

- Reduced water quality – treated wastewater or combined sewer overflows.
- Increased recreation pressure.
- Increased flood risk – impermeable surfaces.

### Reasons for Potential Likely Significant Effects

#### Categories

- Category 7.
- Category 9.

#### Discussion

The policy identifies a site for residential development on the southern edge of Basildon town, in accordance with the broad distribution defined by Policy SD2.

Capacities in the local WRC and the local sewerage network to serve the proposed level of residential growth at this site are uncertain therefore reduced water quality effects cannot be ruled out in the absence of mitigation.

Development sites proposed as part of this policy are located within the ZOI of the following European sites: Thames Estuary and Marshes SPA and Ramsar site, which lies approximately 5.3km to the south. In the absence of mitigation it

## **Appendix C** Screening of Likely Significant Effects

is assumed that residential development at this site could contribute to increased recreation pressure on all of these European sites, in-combination with other residential development in Basildon Borough and elsewhere.

The site is not within Flood Zone 3 (1 in a 100 or greater chance of river flooding each year) therefore it is judged that development here would not be likely to increase flood risk at downstream European sites. Development on this greenfield location could create impermeable surfaces and thereby increase surface drainage rates. This has the potential to increase flood risk at downstream European sites, in-combination with other greenfield development proposed by the Local Plan.

## H8 – West of Basildon

Significant effects uncertain

### Potential Likely Significant Effects

- Reduced water quality – treated wastewater or combined sewer overflows.
- Increased recreation pressure.
- Increased flood risk – impermeable surfaces.

### Reasons for Potential Likely Significant Effects

#### Categories

- Category 7.
- Category 9.

#### Discussion

The policy identifies a site for residential development on the western edge of Basildon town, in accordance with the broad distribution defined by Policy SD2.

Development sites proposed as part of this policy are located within the ZOI of the following European sites: Thames Estuary and Marshes SPA and Ramsar site, located approximately 8.0km to the south east. In the absence of mitigation it is assumed that residential development at this site could contribute to increased recreation pressure on this European sites, in-combination with other residential development in Basildon Borough and elsewhere.



## **Appendix C** Screening of Likely Significant Effects

The site is not within Flood Zone 3 (1 in a 100 or greater chance of river flooding each year) therefore it is judged that development here would not be likely to increase flood risk at downstream European sites. Development on this greenfield location could create impermeable surfaces and thereby increase surface drainage rates. This has the potential to increase flood risk at downstream European sites, in-combination with other greenfield development proposed by the Local Plan.

## H9 – Land West of Steeple View, Laindon

Significant effects uncertain

### Potential Likely Significant Effects

- Reduced water quality – treated wastewater or combined sewer overflows.
- Increased flood risk – impermeable surfaces.

### Reasons for Potential Likely Significant Effects

#### Categories

- Category 7.
- Category 9.

#### Discussion

The policy identifies a site for residential development on the north west edge of Basildon town, in accordance with the broad distribution defined by Policy SD2.

Capacities in the local WRC and the local sewerage network to serve the proposed level of residential growth at this site are uncertain therefore reduced water quality effects cannot be ruled out in the absence of mitigation.

The site is not within Flood Zone 3 (1 in a 100 or greater chance of river flooding each year) therefore it is judged that development here would not be likely to increase flood risk at downstream European sites. Development on this greenfield location could create impermeable surfaces and thereby increase

## **Appendix C** Screening of Likely Significant Effects

surface drainage rates. This has the potential to increase flood risk at downstream European sites, in-combination with other greenfield development proposed by the Local Plan.

## H10 – Land East of Noak Bridge, Basildon

Significant effects uncertain

### Potential Likely Significant Effects

- Reduced water quality – treated wastewater or combined sewer overflows.
- Increased flood risk – impermeable surfaces.

### Reasons for Potential Likely Significant Effects

#### Categories

- Category 7.
- Category 9.

#### Discussion

The policy identifies a site for residential development on the northern edge of Basildon town, in accordance with the broad distribution defined by Policy SD2.

AWS has indicated that capacity is available in Basildon WRC but that upgrades may be required to the local sewerage network to serve the proposed level of residential growth at this site. However, this is on an individual site basis and the cumulative impact of all of the proposed sites may require enhancement to capacity, therefore reduced water quality effects cannot be ruled out in the absence of mitigation.

## **Appendix C** Screening of Likely Significant Effects

Only a very small part of the site is within Flood Zone 3 (1 in a 100 or greater chance of river flooding each year) therefore it is judged that development here would not be likely to increase flood risk at downstream European sites.

Development on this greenfield location could create impermeable surfaces and thereby increase surface drainage rates. This has the potential to increase flood risk at downstream European sites, in-combination with other greenfield development proposed by the Local Plan.

## H11 – East of Basildon

Significant effects uncertain

### Potential Likely Significant Effects

- Reduced water quality – treated wastewater or combined sewer overflows.
- Increased recreation pressure.
- Increased flood risk – impermeable surfaces.

### Reasons for Potential Likely Significant Effects

#### Categories

- Category 7.
- Category 9.

#### Discussion

The policy identifies a site for residential and gypsy and traveller development on the eastern edge of Basildon town, in accordance with the broad distribution defined by Policy SD2.

AWS has indicated that capacity is available in Wickford WRC but that upgrades may be required to the local sewerage network to serve the proposed level of residential growth at this site. However, this is on an individual site basis and the cumulative impact of all of the proposed sites may require enhancement to capacity, therefore reduced water quality effects cannot be ruled out in the absence of mitigation.

## **Appendix C** Screening of Likely Significant Effects

Development sites proposed as part of this policy are located within the ZOI of the following European sites: Blackwater Estuary SPA and Ramsar and Essex Estuaries SAC, which lies 20km to the north-east. In the absence of mitigation it is assumed that residential development at this site could contribute to increased recreation pressure on all of these European sites, in-combination with other residential development in Basildon Borough and elsewhere.

The site is not within Flood Zone 3 (1 in a 100 or greater chance of river flooding each year) therefore it is judged that development here would not be likely to increase flood risk at downstream European sites. Development on this greenfield location could create impermeable surfaces and thereby increase surface drainage rates. This has the potential to increase flood risk at downstream European sites, in-combination with other greenfield development proposed by the Local Plan.

## H12 – Land South of Wickford

Significant effects uncertain

### Potential Likely Significant Effects

- Reduced water quality – treated wastewater or combined sewer overflows.
- Increased recreation pressure.
- Increased flood risk – impermeable surfaces.

### Reasons for Potential Likely Significant Effects

#### Categories

- Category 7.
- Category 9.

#### Discussion

The policy identifies a site for residential and gypsy and traveller development on the south eastern edge of Wickford, in accordance with the broad distribution defined by Policy SD2.

AWS has indicated that capacity is available in Wickford WRC but that upgrades may be required to the local sewerage network to serve the proposed level of residential growth at this site. However, this is on an individual site basis and the cumulative impact of all of the proposed sites may require enhancement to capacity, therefore reduced water quality effects cannot be ruled out in the absence of mitigation.



## **Appendix C** Screening of Likely Significant Effects

Development sites proposed as part of this policy are located within the ZOI of the following European sites: Blackwater Estuary SPA and Ramsar, Essex Estuaries SAC, and Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA and Ramsar site, the latter being the closest of these approximately 3.6km to the north east. In the absence of mitigation it is assumed that residential development at this site could contribute to increased recreation pressure on all of these European sites, in-combination with other residential development in Basildon Borough and elsewhere.

Only a very small part of the site is within Flood Zone 3 (1 in a 100 or greater chance of river flooding each year) therefore it is judged that development here would not be likely to increase flood risk at downstream European sites. Development on this greenfield location could create impermeable surfaces and thereby increase surface drainage rates. This has the potential to increase flood risk at downstream European sites, in-combination with other greenfield development proposed by the Local Plan.

## H13 – Land North of Southend Road, Shotgate

Significant effects uncertain

### Potential Likely Significant Effects

- Reduced water quality – treated wastewater or combined sewer overflows.
- Increased recreation pressure.
- Increased flood risk – impermeable surfaces.

### Reasons for Potential Likely Significant Effects

#### Categories

- Category 7.
- Category 9.

#### Discussion

The policy identifies a site for residential development on the north eastern edge of Wickford, in accordance with the broad distribution defined by Policy SD2.

AWS has indicated that capacity is available in Wickford WRC but that upgrades may be required to the local sewerage network to serve the proposed level of residential growth at this site. However, this is on an individual site basis and the cumulative impact of all of the proposed sites may require enhancement to capacity, therefore reduced water quality effects cannot be ruled out in the absence of mitigation.

## **Appendix C** Screening of Likely Significant Effects

Development sites proposed as part of this policy are located within the ZOI of the following European sites: Blackwater Estuary SPA and Ramsar, Essex Estuaries SAC, and Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA and Ramsar site, the latter being the closest approximately 2.4km to the north east. In the absence of mitigation it is assumed that residential development at this site could contribute to increased recreation pressure on all of these European sites, in-combination with other residential development in Basildon Borough and elsewhere.

The site is not within Flood Zone 3 (1 in a 100 or greater chance of river flooding each year) therefore it is judged that development here would not be likely to increase flood risk at downstream European sites. Development on this greenfield location could create impermeable surfaces and thereby increase surface drainage rates. This has the potential to increase flood risk at downstream European sites, in-combination with other greenfield development proposed by the Local Plan.

## H14 – Land South of Barn Hall, Wickford

Significant effects uncertain

### Potential Likely Significant Effects

- Reduced water quality – treated wastewater or combined sewer overflows.
- Increased recreation pressure.
- Increased flood risk – impermeable surfaces.

### Reasons for Potential Likely Significant Effects

#### Categories

- Category 7.
- Category 9.

#### Discussion

The policy identifies a site for residential and gypsy and traveller development on the north eastern edge of Wickford, in accordance with the broad distribution defined by Policy SD2.

AWS has indicated that capacity is available in Wickford WRC but that upgrades may be required to the local sewerage network to serve the proposed level of residential growth at this site. However, this is on an individual site basis and the cumulative impact of all of the proposed sites may require enhancement to capacity, therefore reduced water quality effects cannot be ruled out in the absence of mitigation.

## **Appendix C** Screening of Likely Significant Effects

Development sites proposed as part of this policy are located within the ZOI of the following European sites: Blackwater Estuary SPA and Ramsar, Essex Estuaries SAC, and Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA and Ramsar site, the latter being the closest of these approximately 4.5km to the east. In the absence of mitigation, it is assumed that residential development at this site could contribute to increased recreation pressure on these European sites, in-combination with other residential development in Basildon Borough and elsewhere.

The site is not within Flood Zone 3 (1 in a 100 or greater chance of river flooding each year) therefore it is judged that development here would not be likely to increase flood risk at downstream European sites. Development on this greenfield location could create impermeable surfaces and thereby increase surface drainage rates. This has the potential to increase flood risk at downstream European sites, in-combination with other greenfield development proposed by the Local Plan.

## H15 – Land North of London Road, Wickford

Significant effects uncertain

### Potential Likely Significant Effects

- Reduced water quality – treated wastewater or combined sewer overflows.
- Increased recreation pressure.
- Increased flood risk – impermeable surfaces.

### Reasons for Potential Likely Significant Effects

#### Categories

- Category 7.
- Category 9.

#### Discussion

The policy identifies a site for development on the western edge of Wickford, in accordance with the broad distribution defined by Policy SD2.

AWS has indicated that capacity is available in Wickford WRC but that upgrades may be required to the local sewerage network to serve the proposed level of residential growth at this site. However, this is on an individual site basis and the cumulative impact of all of the proposed sites may require enhancement to capacity, therefore reduced water quality effects cannot be ruled out in the absence of mitigation.

## **Appendix C** Screening of Likely Significant Effects

Development sites proposed as part of this policy are located within the ZOI of the following European sites: Blackwater Estuary SPA and Ramsar, Essex Estuaries SAC, and Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA and Ramsar site, the latter being the closest of these approximately 5.4km to the east. In the absence of mitigation it is assumed that residential development at this site could contribute to increased recreation pressure on these European sites, in-combination with other residential development in Basildon Borough and elsewhere.

The site is not within Flood Zone 3 (1 in a 100 or greater chance of river flooding each year) therefore it is judged that development here would not be likely to increase flood risk at downstream European sites. Development on this greenfield location could create impermeable surfaces and thereby increase surface drainage rates. This has the potential to increase flood risk at downstream European sites, in-combination with other greenfield development proposed by the Local Plan.

## H16 – Land North East of Potash Road, Billericay

Significant effects uncertain

### Potential Likely Significant Effects

- Reduced water quality – treated wastewater or combined sewer overflows.
- Increased recreation pressure.
- Increased flood risk – impermeable surfaces.

### Reasons for Potential Likely Significant Effects

#### Categories

- Category 7.
- Category 9.

#### Discussion

The policy identifies a site for residential development on the northern edge of Billericay, in accordance with the broad distribution defined by Policy SD2.

AWS has indicated that capacity is available in Billericay WRC but that upgrades may be required to the local sewerage network to serve the proposed level of residential growth at this site. However, this is on an individual site basis and the cumulative impact of all of the proposed sites may require



## **Appendix C** Screening of Likely Significant Effects

enhancement to capacity, therefore reduced water quality effects cannot be ruled out in the absence of mitigation.

Blackwater Estuary SPA and Ramsar and Essex Estuaries SAC is approximately 21km to the east of the development site, all other European sites outside of the ZOI. In the absence of mitigation, it is assumed that residential development at this site could contribute to increased recreation pressure on this European site, in-combination with other residential development in Basildon Borough and elsewhere.

The site is not within Flood Zone 3 (1 in a 100 or greater chance of river flooding each year) therefore it is judged that development here would not be likely to increase flood risk at downstream European sites. Development on this greenfield location could create impermeable surfaces and thereby increase surface drainage rates. This has the potential to increase flood risk at downstream European sites, in-combination with other greenfield development proposed by the Local Plan.

## H17 – South West Billericay

Significant effects uncertain

### Potential Likely Significant Effects

- Reduced water quality – treated wastewater or combined sewer overflows.
- Increased flood risk – impermeable surfaces.

### Reasons for Potential Likely Significant Effects

#### Categories

- Category 7.
- Category 9.

#### Discussion

The policy identifies a site for residential development in south west Billericay.

AWS has indicated that capacity is available in Billericay WRC but that upgrades may be required to the local sewerage network to serve the proposed level of residential growth at this site. However, this is on an individual site basis and the cumulative impact of all of the proposed sites may require enhancement to capacity, therefore reduced water quality effects cannot be ruled out in the absence of mitigation.

## **Appendix C** Screening of Likely Significant Effects

Development sites proposed as part of this policy lie outside of the ZOI for all European sites and it is therefore assumed that any contribution it could make to increased recreation pressure would be negligible.

The site is not within Flood Zone 3 (1 in a 100 or greater chance of river flooding each year) therefore it is judged that development here would not be likely to increase flood risk at downstream European sites. Development on this greenfield location could create impermeable surfaces and thereby increase surface drainage rates. This has the potential to increase flood risk at downstream European sites, in-combination with other greenfield development proposed by the Local Plan.

## H18 – Land South of Windmill Heights, Billericay

Significant effects uncertain

### Potential Likely Significant Effects

- Reduced water quality – treated wastewater or combined sewer overflows.
- Increased flood risk – impermeable surfaces.

### Reasons for Potential Likely Significant Effects

#### Categories

- Category 7.
- Category 9.

#### Discussion

The policy identifies a site for residential development on the southern edge of Billericay, in accordance with the broad distribution defined by Policy SD2.

AWS has indicated that capacity is available in Billericay WRC but that upgrades may be required to the local sewerage network to serve the proposed level of residential growth at this site. However, this is on the basis of fewer homes than the 70 provided for by Policy H25 and on an individual site rather than cumulative basis, therefore reduced water quality effects cannot be ruled out in the absence of mitigation.

## **Appendix C** Screening of Likely Significant Effects

Development sites proposed as part of this policy lie outside of the ZOI for all European sites and it is therefore assumed that any contribution it could make to increased recreation pressure would be negligible.

The site is not within Flood Zone 3 (1 in a 100 or greater chance of river flooding each year) therefore it is judged that development here would not be likely to increase flood risk at downstream European sites. Development on this greenfield location could create impermeable surfaces and thereby increase surface drainage rates. This has the potential to increase flood risk at downstream European sites, in-combination with other greenfield development proposed by the Local Plan.

## H19 – Land East of Greens Farm Lane, Billericay

Significant effects uncertain

### Potential Likely Significant Effects

- Reduced water quality – treated wastewater or combined sewer overflows.
- Increased flood risk – impermeable surfaces.

### Reasons for Potential Likely Significant Effects

#### Categories

- Category 7.
- Category 9.

#### Discussion

The policy identifies a site for residential development on the south eastern edge of Billericay, in accordance with the broad distribution defined by Policy SD2.

Capacities in the local WRC and the local sewerage network to serve the proposed level of residential growth at this site are uncertain therefore reduced water quality effects cannot be ruled out in the absence of mitigation.

## **Appendix C** Screening of Likely Significant Effects

Development sites proposed as part of this policy lie outside of the ZOI for all European sites and it is therefore assumed that any contribution it could make to increased recreation pressure would be negligible.

The site is not within Flood Zone 3 (1 in a 100 or greater chance of river flooding each year) therefore it is judged that development here would not be likely to increase flood risk at downstream European sites. Development on this greenfield location could create impermeable surfaces and thereby increase surface drainage rates. This has the potential to increase flood risk at downstream European sites, in-combination with other greenfield development proposed by the Local Plan.

## H20 – Land East of Southend Road, Billericay

Significant effects uncertain

### Potential Likely Significant Effects

- Reduced water quality – treated wastewater or combined sewer overflows.
- Increased flood risk – impermeable surfaces.
- Loss of offsite functionally linked land.

### Reasons for Potential Likely Significant Effects

#### Categories

- Category 7.
- Category 9.

#### Discussion

The policy identifies a site for residential development on the south eastern edge of Billericay, in accordance with the broad distribution defined by Policy SD2.

AWS has indicated that capacity is available in Billericay WRC but that upgrades may be required to the local sewerage network to serve the proposed level of residential growth at this site. However, reduced water quality effects cannot be ruled out in the absence of mitigation.



## **Appendix C** Screening of Likely Significant Effects

Development sites proposed as part of this policy lie outside of the ZOI for all European sites and it is therefore assumed that any contribution it could make to increased recreation pressure would be negligible.

The site is not within Flood Zone 3 (1 in a 100 or greater chance of river flooding each year) therefore it is judged that development here would not be likely to increase flood risk at downstream European sites. Development on this greenfield location could create impermeable surfaces and thereby increase surface drainage rates. This has the potential to increase flood risk at downstream European sites, in-combination with other greenfield development proposed by the Local Plan.

## H21 – Self-build Allocations

Significant effects uncertain

### Potential Likely Significant Effects

- Reduced water quality – treated wastewater or combined sewer overflows.
- Increased recreation pressure.
- Increased flood risk – impermeable surfaces.

### Reasons for Potential Likely Significant Effects

#### Categories

- Category 7.
- Category 9.

#### Discussion

The Plan identifies three small parcels of land as being suitable specifically for self-build. The sites are adjacent to existing settlement boundary of Billericay and whilst suitable their development potential would not be realised unless they were allocated through policy and subsequently removed from the extent of the Green Belt. Issues as detailed above for H21 may result from this policy.

## H22 – Housing Growth in Crays Hill

Significant effects uncertain

### Potential Likely Significant Effects

- Reduced water quality – treated wastewater or combined sewer overflows.
- Increased recreation pressure.
- Increased flood risk – impermeable surfaces.

### Reasons for Potential Likely Significant Effects

#### Categories

- Category 7.
- Category 9.

#### Discussion

The policy identifies a site for residential development within the extended envelope of Crays Hill village to the west of Wickford, in accordance with the broad distribution defined by Policy SD2.

AWS has indicated that capacity is available in Wickford WRC but that upgrades may be required to the local sewerage network to serve the proposed level of residential growth at this site. However, this is on an individual site basis and the cumulative impact of all of the proposed sites may require enhancement to capacity, therefore reduced water quality effects cannot be ruled out in the absence of mitigation.

## **Appendix C** Screening of Likely Significant Effects

Development sites proposed as part of this policy are located within the ZOI of the following European sites: Blackwater Estuaries SPA and Ramsar and Essex Estuaries SAC at 19km from the proposed development. In the absence of mitigation, it is assumed that residential development at this site could contribute to increased recreation pressure on all of these European sites, in-combination with other residential development in Basildon Borough and elsewhere.

The site is not within Flood Zone 3 (1 in a 100 or greater chance of river flooding each year) therefore it is judged that development here would not be likely to increase flood risk at downstream European sites. Development on this greenfield location could create impermeable surfaces and thereby increase surface drainage rates. This has the potential to increase flood risk at downstream European sites, in-combination with other greenfield development proposed by the Local Plan.

## H23 – The Location of Residential Development

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

The policy supports the provision of residential development in the existing urban areas of the Borough, dependent on the meeting of a number of criteria. The policy guides development towards areas where it is generally not to give rise to significant effects on the European sites beyond the Borough boundary and individual proposals would be subject to project level HRA, if appropriate.

## H24 – The Location of Gypsy and Traveller Sites and Travelling Showpeople Yards

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

The policy details criteria that sites for gypsies, travellers and travelling show people must meet if they are to gain planning permission. These are limited mainly to design issues however there is also reference in the policy to requiring the site not be affected by a high risk of flooding which would help to avoid the likelihood of increasing downstream flood risk to European sites.

## H25 – The Size and Types of Homes

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

The policy will not lead to development but relates to the housing mix provided as to meet the needs of existing and future households in the Borough.

## H26 – Affordable Housing Provision

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

The policy will not lead to development but relates to the affordability of development provided for elsewhere within the Local Plan.



## H27 – Houses in Multiple Occupation and the Subdivision of Family Homes

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

The policy addresses the conversion of large family sized dwelling houses into Houses in Multiple Occupation (HMOs) or flats in the Borough. It will not lead to development in itself.

## H28 – Maximising the Housing Stock

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

The policy seeks to protect the redevelopment of residential properties for other uses in most circumstances. As such it is not expected to lead to development in itself.

## Chapter 12: Requiring Good Design

### DES1 – Achieving Good Design

Significant effects not likely

#### Potential Likely Significant Effects

- None.

#### Reasons for Potential Likely Significant Effects

##### Categories

- N/A.

##### Discussion

The policy will not lead to development but relates to the design of development provided for elsewhere within the Local Plan.

## DES2 – Areas of Special Development Control

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

Policy sets criteria for the layout and design of new dwellings in specified areas where this is required to preserve the amenity of existing development. As such, it will not result in new development.

## DES3 – Urban Character Areas

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

The policy is not expected to lead to development but seeks to promote development which responds to local character and distinctiveness as per the Urban Character Areas of the Borough.

## DES4 – High Quality Buildings

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

The policy requires that new development in the Borough is of a high quality. New development is to be appropriate in terms of siting, scale, form, proportions, materials, details and the overall design. The policy is not likely to result in new development in itself.

## DES5 – High Quality Landscaping and Public Realm Design

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

The policy requires that development allows for high quality soft landscaping, hard landscaping and boundary treatments as appropriate and demonstrates how it will contribute to the public realm of the Borough in terms of both visual amenity and safety. It also promotes the use of native species within new developments as a biodiversity priority. The policy is not expected to lead to new development in itself.

## DES6 – Managing Advertisements

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

The policy addresses advertising structures in the Borough requiring that these features do not impact upon public safety and amenity. The policy is not expected to lead to new development in itself.



## Chapter 13: Promoting Healthy Communities

### HC1 – Health and Wellbeing Strategy

Significant effects not likely

#### Potential Likely Significant Effects

- None.

#### Reasons for Potential Likely Significant Effects

##### Categories

- N/A.

##### Discussion

This policy sets out how the Council will seek to deliver development and growth which has a positive impact in the health and wellbeing of residents and will not lead to development or significant effects.

## HC2 – Strategic Approach to Leisure and Recreation

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

Policy sets strategy of support for provision of new and enhanced open space, sports and recreational facilities. Built facilities supported by this strategy will avoid direct habitat loss or damage to European sites since these are located outside of the Borough boundary and more remote effects are judged unlikely given the distance of these sites from the Borough boundary and the type of development.

Open space provision supported by this strategy should help to mitigate the potential increase in recreation pressure on European sites from housing development proposed elsewhere in the Local Plan. It is uncertain how effective this will be at diverting residents who might otherwise visit European sites as this will depend on a variety of factors including the accessibility and design of new/enhanced open space relative to the European sites.

## HC3 – Strategic Approach to Education, Skills and Learning

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

Policy sets strategy of support for provision of new or enhanced education facilities. Built facilities supported by this strategy will avoid direct habitat loss or damage to European sites since these are located outside of the Borough boundary and more remote effects are judged unlikely given the distance of these sites from the Borough boundary and the type of development.

## HC4 – Community Facilities

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

Policy is mainly concerned with safeguarding existing community facilities and will not lead to development. Enhancements to these facilities are also supported; such development will avoid direct habitat loss or damage to European sites since these are located outside of the Borough boundary and more remote effects are judged unlikely given the distance of these sites from the Borough boundary and the type of development.

## HC5 – Public Open Spaces

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

Policy is mainly concerned with safeguarding existing public open spaces and will not lead to development. Enhancements to these open are also supported; such development will avoid direct habitat loss or damage to European sites since these are located outside of the Borough boundary and more remote effects are judged unlikely given the distance of these sites from the Borough boundary and the type of development.

## HC6 – Local Green Spaces

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

Policy is mainly concerned with safeguarding local green spaces and will not lead to development. Enhancements to these open are also supported; such development will avoid direct habitat loss or damage to European sites since these are located outside of the Borough boundary and more remote effects are judged unlikely given the distance of these sites from the Borough boundary and the type of development.

## HC7 – Allotment Gardens

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

Policy is concerned with safeguarding existing allotments and will not lead to development.

## HC8 – Playing Fields Associated with Education Facilities

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

Policy is concerned with safeguarding existing playing fields and will not lead to development.



## HC9 – Private Open Spaces

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

Policy is mainly concerned with safeguarding existing private open spaces and will not lead to development. Development of essential facilities is also supported; such development will avoid direct habitat loss or damage to European sites since these are located outside of the Borough boundary and more remote effects are judged unlikely given the distance of these sites from the Borough boundary and the type of development.

## HC10 – New and Enhanced Community Facilities

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

The policy supports the provision of new community facilities in the Borough where they are appropriate. These facilities are to be related to defined settlements and therefore it is expected that the policy would guide development to the more developed areas of the Borough minimising potential for detrimental impacts upon the European sites beyond the Borough boundary. Individual developments would also be subject to project level HRA down the line, if appropriate. Provision of new leisure facilities may also help to reduce recreational pressure from housing development on European sites.

## HC11 – Loss of Community Facilities

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

The policy seeks to protect community facilities in the Borough allowing for the change of use of these facilities where they have been identified as being unviable. The policy is not expected to lead to new development in itself.

## HC12 Loss of Open Space

Significant effects not likely

### Potential Likely Significant Effects

- None.

## Reasons for Potential Likely Significant Effects

### Categories

- N/A.

### Discussion

The policy seeks to protect existing open space in the Borough. Development will only be permitted where it meets specific criteria as detailed in the policy. The policy is not expected to lead to new development in itself.

## Chapter 14: Protecting Green belt Land

### GB1andGB2 – Strategic Approach to Green Belt Protection, and Green Belt Extent

Significant effects not likely

#### Potential Likely Significant Effects

- None.

#### Reasons for Potential Likely Significant Effects

##### Categories

- N/A.

##### Discussion

These two policies apply NPPF Green Belt policy to Basildon Borough, defining the extent of the Green Belt in the Borough and describing how the NPPF purposes of Green Belt apply locally. As such, they are not expected to lead to development although they will contribute to directing development proposed by other policies away from the Green Belt and towards the town centres of Basildon, Laindon, Pitsea and Pickford where regeneration is supported.

## GB3 – New Development in the Green Belt

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

The policy seeks to protect the Green Belt from new development and will not lead to development in itself. By preventing new in the Green Belt around the Borough's settlements (except in very special circumstances that clearly outweigh the harm to the Green Belt) it also helps to steer development away from locations closer to European sites, encouraging development within existing urban areas.

## GB4 – Green Belt Infill

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

This policy permits limited residential infill in the Borough's 13 Plotland settlements. Such development will avoid direct habitat loss or damage to European sites since these are located outside of the Borough boundary and more remote effects are judged unlikely given the distance of these sites from the Borough boundary and the small scale of development that will be permitted.

## GB5 – Extensions and Alterations to Buildings in the Green Belt

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

The policy allows for extensions of existing properties within the Green Belt provided they are not disproportionate in terms of the size of the original building. As such the policy would steer development away from European sites as these are situated beyond the Borough boundary. The small scale of development involved is not considered likely to be capable of significant indirect effects on European sites.



## GB6 – Replacement Buildings in the Green Belt

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

The policy supports the provision of replacement buildings of the same use for those within the Green Belt. Replacement development is not be materially bigger and should not result in an intensification of use. As such the policy would steer development away from European sites as these are situated beyond the Borough boundary. The small scale of development involved is not considered likely to be capable of significant indirect effects on European sites.

## GB7 – Change of Use of Buildings and Land in the Green Belt

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

The policy supports the change of use of buildings within the Green Belt dependent upon the satisfaction of a number of criteria to include requiring that an intensification of use will not occur and unacceptable generation of traffic or pollution is unlikely. As such the policy will not result in development.

## GB8 – Ancillary Buildings and Structures in the Green Belt

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

The policy addresses the provision of ancillary buildings in the Green Belt. The development of ancillary buildings and previous extensions is to be limited to an increase of no more than 35% more than the original size of the building. As such the policy would steer development away from European sites as these are situated beyond the Borough boundary. The small scale of development involved is not considered likely to be capable of significant indirect effects on European sites.

## GB9 – Extensions to Residential and other Curtilages, and Boundary Treatments in the Green Belt

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

The policy protects the Green Belt from encroachment in terms of boundary amendments with support to be given to these types of proposals only where the openness of the Green Belt can be maintained. The policy specifically relates to enclosure or boundary treatment at Green Belt locations and as such should not result in development in itself.

## GB10 – Agricultural Worker Dwellings in the Green Belt

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

The policy prevents the granting of permissions for new dwellings in the Green Belt in most circumstances but this type of development is to be permitted if a functional need can be established. As such the policy would steer development away from European sites as these are situated beyond the Borough boundary. The small scale of development involved is not considered likely to be capable of significant indirect effects on European sites.

## GB11 – Positive Uses of Land in the Green Belt

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

The policy supports proposals in the Green Belt which will meet a number of criteria including not resulting in unacceptable generation of traffic, noise, or other forms of disturbances and improving nature conservation and opportunities for sports and recreation. As such this policy is not expected to result in development which would increase pressures on surrounding European sites and the provision of opportunities for sports and recreation may help reduce potential for recreational pressures in these areas.

## Chapter 15: Meeting the Challenge of Climate Change and Flooding

### CC1 – Responding to Climate Change

Significant effects not likely

#### Potential Likely Significant Effects

- None.

#### Reasons for Potential Likely Significant Effects

##### Categories

- N/A.

##### Discussion

The policy seeks to reduce carbon emissions from the Borough and minimise climate change-related flood risk. This will be achieved by a variety of measures, these being set out in more detail in other Local Plan policies. The exception to this is the policy's requirement for large development proposals to incorporate renewable energy generation, preferably on-site. This requirement is not considered capable of likely significant effects on any European site.

## CC2 – Flood Risk and Drainage Management

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

The policy sets out the strategic approach to reducing the risk of flooding in the Borough through measures which are covered in more detail by Policies CC3 and CC4. These are separately assessed below.



## CC3 – Washlands

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

This policy safeguards areas of flood and storm water storage within or on the edge of the Borough's settlements and will not lead to development.

## CC4 – Managing Flood Risk in New Development

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

The policy seeks to reduce risk of flooding in the Borough through measures such as providing development at areas of reduced flood risk by making use of a sequential approach and the incorporation of SuDS as part of all development proposals.

As such it will not lead to new development and should help to reduce the risk that development provided by other Local Plan policies might increase flood risk at downstream European sites.

## CC5 – Sustainable Buildings – New Builds

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

The policy seeks to require new buildings to be as sustainable as possible through appropriate design and location. This is to include energy and water efficiency as well as waste management. The policy in itself would not result in a new development.

## CC6 – Sustainable Buildings – Extensions, Alterations and Conversions

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

The policy seeks to require extensions in the Borough to be as sustainable as possible through appropriate design and location. This is to include risk in terms of extreme weather events, energy and water efficiency as well as waste management. The policy in itself would not result in a new development.

## CC7 – Renewable Energy Infrastructure

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

The policy supported the provision of renewable energy and low carbon schemes. Similarly wind turbines and solar farms are to be supported.

Wind turbine development can pose a collision risk to designated bird populations of European sites outside of the immediate development area. It is judged that the effect would only be likely to be significant if a major wind farm were placed on a major migration route or within an important feeding, breeding or roosting area. Policy CC7 offers only generic support for renewables development but the likely scale and location of development will depend on the particular proposals that come forward. Individual wind energy development proposals would be subject to project level HRA if required and it is judged that this is a more appropriate stage at which to assess the potential for likely significant effects on designated bird populations of European sites.

## **Appendix C** Screening of Likely Significant Effects

Recommendation: proposals for wind energy generation should include an assessment of whether the development site lies on a major migration route or within an important feeding, breeding or roosting area for any designated bird population of a European site (HRA Screening conclusion is not dependent on adoption of this recommendation).

## Chapter 16: Conserving and Enhancing the Natural Environment

### NE1 – Green Infrastructure Strategy

Significant effects not likely

#### Potential Likely Significant Effects

- None.

#### Reasons for Potential Likely Significant Effects

##### Categories

- N/A.

##### Discussion

The policy supports protection, extension and enhancement of the Borough's green infrastructure network, creation of new habitats and partnership working to deliver the aims of the South Essex Green Grid Strategy and Greater Thames Marshes Nature Improvement Area. As such it is not expected to lead to development and should lead to improvements to the natural environment, including biodiversity.

## NE2 – Country Parks

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

This policy safeguards existing Country Parks in the Borough and as such, will not lead to development.



## NE3 – Local Wildlife Sites

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

This policy seeks the conservation and enhancement of Local Wildlife Sites in the Borough. As such it is not expected to lead to development and should lead to improvements to the natural environment, including biodiversity.

## NE4 – Development Impacts on Ecology and Biodiversity

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

The policy supports developments which will result in net gain in biodiversity in the Borough while requiring that development which is likely to have adverse effects on a number of different designated biodiversity sites is not normally permitted. Where harm on other biodiversity sites is likely appropriate mitigation should be incorporated. This includes specific protection measures relation to European designated sites, including detail on the Essex RAMS The policy in itself would not result in a new development.

## NE5 – Development Impacts on Landscape and Landscape Features

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

The policy seeks to protect natural and semi-natural features and the character of the landscape from inappropriate development. Although the purpose of the policy is to enhance the quality and visual amenity of the landscape and urban environment in the Borough, protection of natural and semi-natural features may also have positive effects on biodiversity in the area. The policy in itself would not result in a new development.

## NE6 – Pollution Control and Residential Amenity

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

The policy seeks to protect the environment in the Borough from pollution to land, air or water. This is to be achieved through the appropriate siting of development and through design considerations (e.g. the successful incorporation of the SuDS). The policy will not result in development in itself.

## NE7 – Air Quality

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

**6.4** This policy seeks to protect the environment from air pollution by outlining requirements for proposed developments to mitigate for impacts in relation to air pollution and where possible to enhance. For major developments, there will also be a requirement to achieve air quality neutrality as a minimum. The policy will not result in development in itself.

## NE8 – Development on Contaminated Land

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

The policy addresses development in terms of contaminated land and its remediation. The policy in itself would not result in a new development.

## NE9 – Ensuring Health and Safety in Development

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

The policy addresses new hazardous development in the Borough in terms of assessment against Health and Safety Executive Guidance and impacts on water quality when certain development is located within proximity of a Water Recycling Centre. As such the policy may help to reduce potential for impacts from pollution in the Borough. The policy would not result in development in itself.

## NE10 – Development of Agricultural Land

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

None.



## Chapter 17: Conserving and Enhancing the Historic Environment

### HE1 – Strategy for Conserving and Enhancing the Historic Environment

Significant effects not likely

#### Potential Likely Significant Effects

- None.

#### Reasons for Potential Likely Significant Effects

##### Categories

- N/A.

##### Discussion

The policy sets out the strategic approach to conserving and enhancing the historic environment in the Borough through sensitive development proposals. The policy would not result in development in itself.

## HE2 – Conservation Areas

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

The policy seeks to preserve and enhance character and appearance of Conservation Areas in the Borough. This is to be achieved through retaining features and buildings important to the character of the area and through design which is sensitive but allows for energy efficiency and renewable energy technologies. The policy would not result in development in itself.

## HE3 – Listed Buildings

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

The policy allows for development and change of use of a Listed Building provided there is to be protection for the significance of the building among other consideration. If a proposal is to affect the significance of a Listed Building this is to be weighed against any public benefit with harm or loss of significance to be minimised through appropriate mitigation. The policy would not result in development in itself.

## HE4 – Scheduled Monuments and Archaeology

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

The policy seeks to protect Scheduled Monuments and other important archaeological sites adopting a precautionary approach. The policy would not result in development in itself.

## HE5 – Locally Identified Heritage Assets

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

The policy supports development of locally identified heritage assets dependent upon that development being sensitive and sympathetic of the character of the asset in question. The significance of heritages is to be retained where development might affect them. The policy in itself would not result in development.

## Chapter 18: Implementation, Monitoring and Review

### IMP1 – Implementation Strategy

Significant effects not likely

#### Potential Likely Significant Effects

- None.

#### Reasons for Potential Likely Significant Effects

##### Categories

- N/A.

##### Discussion

This policy describes mechanisms and processes which will help the Local Plan policies to be delivered, for example establishment of an Infrastructure Delivery Plan and setting of Community Infrastructure Levy contributions to essential infrastructure. As such, it will not in itself result in development.

## IMP2 – Use of Planning Obligations

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

The policy requires new development to contribute towards mitigating its impact on the environment amongst other things. This is to include flood prevention, green infrastructure (which may reduce potential recreational pressures on the surrounding European sites) and climate change and energy initiatives (which may reduce potential for impacts as a result of pollution according on the surrounding European sites). The policy will permit developers to provide the necessary infrastructure themselves instead of providing financial contributes to this end.

## IMP3 – Phasing of Development

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

The policy sets the phasing of development which is to be acceptable in terms of incorporation of environmental mitigation and infrastructure as well as affordable housing. The policy in itself should not result in development.



## IMP4 – Piecemeal Development

Significant effects not likely

### Potential Likely Significant Effects

- None.

### Reasons for Potential Likely Significant Effects

#### Categories

- N/A.

#### Discussion

The policy supports the development of part of an allocated development site where the developer can meet the criteria of the Council. The policy in itself should not result in development.

## References

- 1 The Conservation (Natural Habitats, andc.) (Amendment) Regulations 2007 (2007) SI No. 2007/1843. TSO (The Stationery Office), London.
- 2 The Conservation of Habitats and Species Regulations 2017 (2017) SI No. 2017/1012, as amended by The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (SI 2019/579), TSO (The Stationery Office), London.
- 3 The exception to this would be where ‘imperative reasons of overriding public interest’ can be demonstrated; see paragraph 1.17.
- 4 The integrity of a site is the coherence of its ecological structure and function, across its whole area, that enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was designated. (Source: UK Government Planning Practice Guidance).
- 5 Department for Levelling Up, Housing and Communities and Ministry of Housing, Communities and Local Government (2019) Appropriate assessment: Guidance on the use of Habitats Regulations Assessment [online]. Available at: <https://www.gov.uk/guidance/appropriate-assessment>
- 6 Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (the ‘Habitats Directive’).
- 7 Directive 2009/147/EC of 30 November 2009 on the conservation of wild birds (the ‘Birds Directive’).
- 8 European Commission (undated) The network of protected areas identified by the EU [online]. Available at: [https://ec.europa.eu/environment/nature/natura2000/index\\_en.htm](https://ec.europa.eu/environment/nature/natura2000/index_en.htm)
- 9 Department for Environment, Food and Rural Affairs (2021) Changes to the habitats Regulations 2017 [online]. Available at: <https://www.gov.uk/government/publications/changes-to-the-habitats-regulations-2017/changes-to-the-habitats-regulations-2017>

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- 10** Department for Environment, Food and Rural Affairs (2021) Changes to the habitats Regulations 2017 [online]. Available at: <https://www.gov.uk/government/publications/changes-to-the-habitats-regulations-2017/changes-to-the-habitats-regulations-2017>
- 11** Department for Levelling Up, Housing and Communities (2012) National Planning Policy Framework (Paragraph 176) [online]. Available at: <https://www.gov.uk/guidance/national-planning-policy-framework>
- 12** David Tyldesley and Associates (undated) The HRA Handbook, Section A3 [online]. A subscription based online guidance document available at: <https://www.dtapublications.co.uk/handbook/European>
- 13** Department for Levelling Up, Housing and Communities and Ministry of Housing, Communities and Local Government (2019) Appropriate assessment: Guidance on the use of Habitats Regulations Assessment [online]. Available at: <https://www.gov.uk/guidance/appropriate-assessment>
- 14** David Tyldesley and Associates (undated) The HRA Handbook, Section A3 [online]. A subscription based online guidance document available at: <https://www.dtapublications.co.uk/handbook/European>
- 15** Conservation objectives are published by Natural England for SACs and SPAs.
- 16** In line with the CJEU judgment in Case C-323/17 People Over Wind v Coillte Teoranta, mitigation must only be taken into consideration at this stage and not during Stage 1: HRA Screening.
- 17** In addition to SAC and SPA citations and conservation objectives, key information sources for understanding factors contributing to the integrity of the sites include (where available) conservation objectives supplementary advice and Site Improvement Plans prepared by Natural England. Natural England (undated) Site Improvement Plans by region [online]. Available at: <http://publications.naturalengland.org.uk/category/5458594975711232>
- 18** Basildon Borough Council (2020) Local Development Scheme 2020-2022: 11<sup>th</sup> Edition [pdf]. Available at: <https://www.basildon.gov.uk/media/10263/Basildon-Council-Local->

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- [Development-Scheme-2020-2022-11th-Edition/pdf/Basildon\\_Council\\_-\\_Local\\_Development\\_Scheme\\_2020-2022\\_-\\_11th\\_Edition.pdf?m=637369005651630000.](#)
- 19** Obtained from the Natural England website, available at: [www.naturalengland.org.uk](http://www.naturalengland.org.uk).
- 20** Natural England (undated) Conservation Objectives for European Sites [online]. Available at: <http://publications.naturalengland.org.uk/category/6490068894089216>
- 21** The Conservation of Habitats and Species Regulations 2017 (2017) SI No. 2017/1012, as amended by The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (SI 2019/579).
- 22** ECJ Case C-127/02 “Waddenzee” Jan 2004.
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