



## **HRA Report for Section 2 of the Braintree Publication Draft Local Plan**

Prepared by LUC  
May 2017

**Project Title:** Habitats Regulations Assessment of Section 2 of the Braintree Publication Draft Local Plan

**Client:** Braintree District Council

Version	Date	Version Details	Prepared by	Checked by	Approved by
V1.0	28/07/16	Draft to client for review	Rebecca Turner Jonathan Pearson Jeremy Owen	Jeremy Owen Jonathan Pearson	Jeremy Owen
V2.0	08/08/2016	Final for consultation	Rebecca Turner Jonathan Pearson Jeremy Owen	Jeremy Owen Jonathan Pearson	Jeremy Owen
V3.0	12/05/2017	Reg 19 Section 2 Local Plan: Appropriate Assessment and updates to Screening Stage following Natural England response	David Green	David Green	Jeremy Owen



[www.landuse.co.uk](http://www.landuse.co.uk)

## HRA Report for Section 2 of the Braintree Publication Draft Local Plan

Prepared by LUC  
May 2017

Planning & EIA  
Design  
Landscape Planning  
Landscape Management  
Ecology  
Mapping & Visualisation

LUC LONDON  
43 Chalton Street  
London  
NW1 1JD  
T +44 (0)20 7383 5784  
[london@landuse.co.uk](mailto:london@landuse.co.uk)

Offices also in:  
Bristol  
Glasgow  
Edinburgh



FS 566056 EMS 566057

Land Use Consultants Ltd  
Registered in England  
Registered number: 2549296  
Registered Office:  
43 Chalton Street  
London NW1 1JD  
LUC uses 100% recycled paper

# Contents

<b>1</b>	<b>Introduction</b>	<b>1</b>
	Natural England Comments on the HRA Screening of Braintree District Draft Local Plan	1
	Background to the Local Plan	2
	The requirement to undertake Habitats Regulations Assessment of Development Plans	3
	HRA work carried out previously	5
	Structure of this report	5
<b>2</b>	<b>Braintree Publication Draft Local Plan</b>	<b>7</b>
	Content of the Braintree Publication Draft Local Plan	7
<b>3</b>	<b>Methodology</b>	<b>11</b>
	Scope of the HRA Screening	11
	Identification of European sites which may be affected by the Local Plan	11
	Ecological attributes of the European sites	11
	Assessment of 'likely significant effects' of the Braintree Local Plan	12
	Mitigation provided by the Local Plan	12
	In-combination effects	12
	Appropriate Assessment	13
<b>4</b>	<b>Information on European sites</b>	<b>14</b>
	European sites potentially affected by the Local Plan	14
	Ecological attributes of the European sites	15
<b>5</b>	<b>Screening assessment</b>	<b>17</b>
	Introduction	17
	Key vulnerabilities and factors affecting site integrity	17
	Screening assessment	21
<b>6</b>	<b>HRA Screening conclusions and next steps</b>	<b>30</b>
	Conclusions	30
<b>7</b>	<b>Appropriate Assessment</b>	<b>32</b>
<b>8</b>	<b>Conclusion</b>	<b>42</b>
<b>Appendix 1</b>		<b>43</b>
	Characteristics of European Sites	43
<b>Appendix 2</b>		<b>60</b>
	Review of other plans and projects	60

# 1 Introduction

- 1.1 LUC has been commissioned by Braintree District Council ('the Council') to carry out a Habitats Regulations Assessment (HRA) of Section 2 of the Braintree Publication Draft Local Plan.
- 1.2 The Council intends to consult on three versions of the Local Plan as follows:
  - Issues and Scoping document – this was published for consultation during January-March 2015.
  - Draft Section 2 Local Plan, setting out preferred options – published for consultation during the period 27 June-19 August 2016.
  - Proposed Submission Section 2 Local Plan, also known as Publication or Regulation 19 stage – currently scheduled for consultation during summer 2017.
- 1.3 LUC previously undertook an HRA Screening of the Preferred Options Draft Section 2 Local Plan, to determine whether it could result in likely significant effects on any European site, either alone or in-combination with other plans and projects.
- 1.4 The HRA Screening of the Braintree Preferred Options District Draft Section 2 Local Plan concluded that alone it would not give rise to likely significant effects on any European sites. However, the HRA Screening found that there is the potential for likely significant effects at the following European sites as a result of recreational disturbance in-combination with the North Essex Authorities Strategic Part 1 for Local Plans:
  - Blackwater Estuary SPA/Ramsar site.
  - Colne Estuary SPA/Ramsar site.
  - Crouch and Roach Estuaries SPA/Ramsar
  - Dengie SPA/Ramsar site.
  - Essex Estuaries SAC.
- 1.5 It was recommended that an HRA assessment of the Part 1 North Essex Authorities Shared Strategic Plan is undertaken, to consider the potential for likely significant effects on European sites, either alone or in-combination with the Part/Section 2 of Local Plans for each of the three local authorities. This has been undertaken and is reported separately, albeit relevant findings have been referenced in this assessment.
- 1.6 This HRA report provides the Appropriate Assessment of Section 2 of the Braintree Publication Draft Local Plan in respect of the in-combination recreational impacts identified at the Screening stage, and also updates the Screening stage to address comments made by Natural England, as described below.

## Natural England Comments on the HRA Screening of Braintree District Draft Local Plan

- 1.7 Natural England reviewed the HRA Screening of the Preferred Options Braintree District Section 2 Draft Local Plan and in its consultation response, confirmed that it *"does not generally dispute the conclusions reached"*. However, Natural England provided the following comments on the methodology:

*"The use of Site Improvement Plans as justification for 'no likely significant effects'. Whilst it is true that Site Improvement Plan documents seek to provide an overview of current issues affecting a site and predict future pressures based on current trends, these documents cannot be expected to anticipate future nearby development or the impacts that they may have. Therefore,*

*they can be used in a document such as this to illustrate existing problems that may need to be addressed but should not be used as proof of resilience to an impact which is not identified.*

*This methodology is used frequently throughout the document. For example paragraph 5.5 states:*

*'Given that the Site Improvement Plans for the European sites do not list lowering of water levels as being a key vulnerability or factor affecting site integrity, and the conclusions of the HRA of the SADMP, it is considered that the lowering of water levels is not an issue that requires further consideration in this HRA Screening assessment.'*

*Lowering of water levels may not be listed as a key vulnerability because it is not anticipated. If Braintree Local Plan was considered likely to bring about a significant lowering of water levels at a European Sites then the Habitats Regulations Assessment (HRA) Screening should consider whether this will have a 'likely significant effect' on the site and its designated features. Note also that the HRA of Braintree Site Allocations and Development Management Policies (SADMP) should not be relied upon either as the two documents make different proposals and the SADMP did not pass through examination.*

*Evidence should be presented that water levels will not be affected at the European Sites or that lowering of water levels will not result in a 'likely significant effect' before screening out.*

#### HRA Conclusion

*The above notwithstanding, Natural England recognises that distance and pathways preclude most forms of impact upon European Sites. We agree that there is potential for the plan, in combination with other plans and projects, to increase the levels of recreational disturbance experienced at the European Sites listed in section 6.5. Natural England is therefore satisfied that the decision to proceed to Appropriate Assessment is appropriate."*

- 1.8 This HRA report updates the previous approach to Screening to take account of the above comments by Natural England.

## Background to the Local Plan

- 1.9 The Braintree District Core Strategy was adopted in 2011. A Strategic Housing Market Assessment (SHMA) was produced in the first half of 2014 to update the Council's evidence on housing need. The SHMA (which is now out of date for the purposes of calculating Objectively Assessed Need 'OAN' for housing) indicated that substantially more dwellings were required than the annual provision in the Core Strategy. In light of this new housing evidence and the new national policy requirements in the National Planning Policy Framework (NPPF), the Council resolved in June 2014 not to proceed with its draft Site Allocations and Development Management Plan (SADMP), for which Pre-submission consultation had been completed, and instead commence work on a new Local Plan. The North Essex authorities (Braintree, Colchester and Tendring districts) are committed to plan positively for new homes and to significantly boost the supply of housing to meet the needs of the area. To meet the requirements of national policy to establish the number and type of new homes, the authorities commissioned Peter Brett Associates to produce an Objectively Assessed Housing Need Study building on earlier work. This was first published in July 2015 and updated in January 2016. It meets the requirements of the NPPF to prepare a Strategic Housing Market Assessment (SHMA).
- 1.10 The new Braintree Local Plan will include all major planning policy for the District in a single document and will need to meet the requirements of the NPPF. Once complete, it will replace both the Core Strategy (adopted 2011) and the Local Plan Review saved policies (adopted 2005). Responsibilities for minerals and waste development plans will remain at the County level and the Braintree Local Plan will therefore need to take account of the Essex Minerals Local Plan (adopted 2014) and the saved policies of the Essex Waste Local Plan (adopted 2001) until the emerging Replacement Waste Local Plan is adopted. Local communities may choose to produce a neighbourhood plan for their area in order to set out a vision and planning policies for the use and development of land in a neighbourhood. Any such plans will need to be in conformity with the strategic policies in the Braintree Local Plan.

- 1.11 The Local Plan will set out the Council's strategy for future development and growth in the District up to 2033 and will include strategic policies, development management policies and site allocations. As the Council has to plan for a larger number of new homes in the District than were provided for in the Core Strategy, it has looked at larger and/or more numerous development sites. This includes urban extensions like Great Notley, which was built in the early 2000s, and new settlements which could follow Garden City or Garden Suburb design principles.

## The requirement to undertake Habitats Regulations Assessment of Development Plans

- 1.12 The requirement to undertake HRA of development plans was confirmed by the amendments to the Habitats Regulations published for England and Wales in July 2007 and updated in 2010<sup>1</sup> and again in 2012<sup>2</sup>. Therefore, when preparing its Local Plan, Braintree District Council is required by law to carry out a Habitats Regulations Assessment, although consultants can undertake the HRA on its behalf. The requirement for authorities to comply with the Habitats Regulations when preparing a Local Plan is explained in the online National Planning Practice Guidance (NPPG).
- 1.13 The HRA refers to the assessment of the potential effects of a development plan on one or more European sites, including Special Protection Areas (SPAs) and Special Areas of Conservation (SACs):
- SPAs are classified under the European Council Directive 'on the conservation of wild birds' (79/409/EEC; 'Birds Directive') for the protection of wild birds and their habitats (including particularly rare and vulnerable species listed in Annex 1 of the Birds Directive, and migratory species).
  - SACs are designated under the Habitats Directive and target particular habitats (Annex 1) and/or species (Annex II) identified as being of European importance.
- 1.14 Potential SPAs (pSPAs)<sup>3</sup>, candidate SACs (cSACs)<sup>4</sup>, Sites of Community Importance (SCIs)<sup>5</sup> and Ramsar sites should also be included in the assessment.
- Ramsar sites support internationally important wetland habitats and are listed under the Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar Convention, 1971).
- 1.15 For ease of reference during HRA, these designations are collectively referred to as European sites<sup>6</sup>, despite Ramsar designations being at the international level.
- 1.16 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 either alone or in combination with other plans and projects. 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 meaning that where uncertainty or doubt remains, an adverse impact should be assumed.

---

<sup>1</sup> The Conservation (Natural Habitats, &c.) (Amendment) Regulations 2007. HMSO Statutory Instrument 2007 No. 1843. From 1 April 2010, these were consolidated and replaced by the Conservation of Habitats and Species Regulations 2010 (SI No. 2010/490). Note that no substantive changes to existing policies or procedures have been made in the new version.

<sup>2</sup> The Conservation of Habitats and Species (Amendment) Regulations 2012. Statutory Instrument 2012 No. 1927.

<sup>3</sup> Potential SPAs are sites that have been approved by Government and are currently in the process of being classified as SPAs.

<sup>4</sup> Candidate SACs are sites that have been submitted to the European Commission, but not yet formally adopted.

<sup>5</sup> SCIs are sites that have been adopted by the European Commission but not yet formally designated as SACs by the Government.

<sup>6</sup> The term 'Natura 2000 sites' can also be used interchangeably with 'European sites' in the context of HRA, although the latter term is used throughout this report.

## Stages of the Habitats Regulations Assessment

1.17 **Table 1.1** below summarises the stages involved in carrying out HRA, based on various guidance documents<sup>7,8,9</sup>.

**Table 1.1: Stages in HRA**

Stage	Task	Outcome
Stage 1: Screening (the 'Significance Test')	Describe the plan.  Identify potential effects on European Sites.  Assess the effects on European Sites (taking into account potential mitigation provided by other policies in the plan).	Where effects are judged unlikely, prepare a 'finding of no significant effect report'.  Where effects are judged likely, or lack of information to prove otherwise, proceed to Stage 2.
Stage 2: Appropriate Assessment (the 'Integrity Test')	Gather information (plan and European Sites).  Evaluate impacts in view of conservation objectives. Where impacts considered to affect qualifying features, identify alternative options.  Assess alternative options.  If no alternatives exist, define and evaluate mitigation measures where necessary.	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	Identify 'imperative reasons of overriding public interest' (IROPI).  Identify potential compensatory measures.	This stage should be avoided if at all possible. The test of IROPI and the requirements for compensation are extremely onerous.

1.18 In assessing the effects of Section 2 of the Braintree Publication Draft Local Plan in accordance with Regulation 102 of the Conservation of Habitats and Species Regulations 2010, 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. 102(1)(b), consider whether the plan is directly connected with or necessary to the management of the sites. If not –
- Step 2: Under Reg. 102(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 in **Table 1.1** above.] If Yes –

<sup>7</sup> Assessment of plans and projects significantly affecting European Sites. Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC. European Commission Environment DG, November 2001.

<sup>8</sup> Planning for the Protection of European Sites. Guidance for Regional Spatial Strategies and Local Development Documents. Department for Communities and Local Government (DCLG), August 2006.

<sup>9</sup> The Appropriate Assessment of Spatial Plans in England. A guide to why, when and how to do it. RSPB. August 2007.

- Step 3: Under Reg. 102(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. 102(2) to consult Natural England, and optional under Reg. 102(3) to take the opinion of the general public. [This step is undertaken during Stage 2: Appropriate Assessment shown in **Table 1.1** above.]
  - Step 4: In accordance with Reg.102(4), but subject to Reg.103, give effect to the land use plan only after having ascertained that the plan will not adversely affect the integrity of the European site.
- 1.19 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 inclusion of mitigation measures designed to avoid, reduce or abate 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 both the Government and European Commission.
- 1.20 The HRA should be undertaken by the 'competent authority' - in this case Braintree District Council, and LUC has been commissioned to do this on its behalf. The HRA also requires close working with Natural England as the statutory nature conservation body<sup>10</sup> in order to obtain the necessary information and agree the process, outcomes and any mitigation proposals. The Environment Agency, while not a statutory consultee for the HRA, is also in a strong position to provide advice and information throughout the process as it is required to undertake HRA for its existing licences and future licensing of activities.

## HRA work carried out previously

- 1.21 The adopted Core Strategy for Braintree District was subject to HRA throughout its development. The final HRA document is:
- Appropriate Assessment: Braintree District Council Local Development Framework draft Core Strategy (prepared by Royal Haskoning for Braintree District Council, 2009).
- 1.22 As explained above, the SADMP, although not adopted, reached an advanced stage of preparation and the Council is rolling forward work completed on it into the new Local Plan. HRA work carried out on the SADMP is therefore also of relevance and the latest HRA document is:
- Habitats Regulations Assessment Screening Report: Braintree Site Allocations and Development Management Plan (prepared by Lepus Consulting for Braintree District Council, March 2014).
- 1.23 Therefore, there is already a significant body of HRA work available relating to Braintree District which can be drawn upon, updating and amending it as necessary, to inform HRA of the new Local Plan.

## Structure of this report

- 1.24 This chapter (Chapter 1) has described the background to the preparation of the Braintree Publication Draft Local Plan and the requirement to undertake HRA. The remainder of the report is structured as follows:
- Chapter 2 summarises the main components of the Braintree Publication Draft Local Plan.
  - Chapter 3 describes the method used for the HRA Screening.
  - Chapter 4 identifies the European sites that are covered by the HRA Screening of the Draft Local Plan.

---

<sup>10</sup> Regulation 5 of The Conservation of Habitats and Species Regulations 2010. HMSO Statutory Instrument 2010 No. 490.

- Chapter 5 provides the findings of the HRA Screening exercise.
- Chapter 6 sets out the screening conclusions and recommended next steps.
- Chapter 7 provides the Appropriate Assessment.
- Chapter 8 provides a summary conclusion of the HRA.

1.25 The main report is accompanied by a series of appendices:

- Appendix 1 sets out the characteristics of the European sites covered by the HRA Screening.
- Appendix 2 summarises other plans and projects that could have the potential for in-combination effects with Section 2 of the Braintree District Publication Draft Local Plan.

## 2 Braintree Publication Draft Local Plan

- 2.1 The Braintree Publication Draft Local Plan is divided into nine main chapters:
- Chapter 1: Index of policies.
  - Chapter 2: Introduction and background.
  - Chapter 3: Shared strategic plan.
  - Chapter 4: Vision and objectives.
  - Chapter 5: The spatial strategy.
  - Chapter 6: A prosperous district.
  - Chapter 7: Creating better places.
  - Chapter 8: The District's natural environment.
  - Chapter 9: Delivery and implementation.
- 2.2 Chapters 1 and 2 provide introductory and contextual information for the Publication Draft Local Plan, and are therefore not relevant to the HRA. Chapter 9 contains no policies. Chapter 3 which sets out the Shared Strategic Plan (Part 1 for Local Plans) has been assessed as part of a separate HRA, and therefore this HRA assesses Section 2 of the Braintree Publication Draft Local Plan only.
- 2.3 The contents of Sections 3 to 8 of the Publication Draft Local Plan are summarised below.

### Content of the Braintree Publication Draft Local Plan

#### Chapter 3: Shared strategic plan

- 2.4 This Chapter of the Braintree Publication Draft Local Plan has been prepared in collaboration with the neighbouring local authorities of Colchester Borough Council and Tendring District Council (collectively known as the 'North Essex Authorities'). This is because the three local authorities were of the view that the best outcomes for current and future communities could be achieved by working together.
- 2.5 The result of this collaborative approach is a 'Shared Strategic Plan' (Part 1) that will be incorporated within all three local authorities' Local Plans. It comprises 10 'SP' policies, covering:
- Policy SP1: Presumption in Favour of Sustainable Development (a standard policy included in all Local Plans).
  - Policy SP2: Meeting Housing Needs in the three authorities, totalling 43,765 net additional homes during the plan period 2013-2037, including 14,365 in Braintree District.
  - Policy SP3: Providing for Employment in the three authorities, with a minimum net increase of 139.1 ha of employment land up to 2033, of which 43.3 ha will be in Braintree District.
  - Policy SP4: Infrastructure and Connectivity, which sets out key infrastructure requirements, in particular to the transport network.
  - Policy SP5: Place Shaping Principles, which sets the standards of built and urban design that should be met when delivering development in the three authority areas.
  - SP6: Spatial Strategy for North Essex, which explains that the principal focus of growth will be the existing settlements, prioritising previously developed land where this is in accordance with sustainable development principles, plus provision for three new garden communities, two of which will fall either wholly or partly in Braintree District.

- Policy SP7: Development and Delivery of New Garden Communities, which provides overarching guidance in support of Policy SP6 in terms of design and delivery principles, and states that the new garden community proposed for the border of Colchester Borough and Braintree and District (Marks Tey) will deliver up to 2,500 homes in the plan period, as part of an overall total of between 15,000 and 20,000 homes, and that the new garden community proposed for west of Braintree on the border of Uttlesford District will deliver 2,500 homes within the plan period, as part of an overall total of between 10,000 and 13,000 homes.
- Policy SP8: East Colchester/West Tendring New Garden Community, Policy SP9: West of Colchester/East of Braintree New Garden Community, and Policy SP10: West of Braintree New Garden Community, provide further detailed policy guidance on each of the three proposed new garden communities.

#### **Chapter 4: Vision and objectives**

- 2.6 Chapter 4 marks the start of the Local Plan that applies only to Braintree District. It sets out the vision for the District at the end of the Plan period, and is supported by a series of objectives addressing the economy, retail and town centres, housing need, transport infrastructure, broadband, education and skills, protection of the environment, good quality design, healthy communities, social infrastructure, sustainability, and empowering local people.

#### **Chapter 5: The spatial strategy**

- 2.7 The broad spatial strategy for the District is to concentrate development on Braintree, planned new garden communities, Witham and the A12 corridor, and Halstead.

#### **Chapter 6: A prosperous district**

- 2.8 Chapter 6 of the Local Plan is where the planned development is set out. It comprises 43 'LPP' policies, including sub-policies.
- 2.9 The employment policies (Policies LPP1 to LPP6) provide for a series of new strategic employment land sites, employment policy areas, and detailed policy guidance with respect to specific employment locations or types of employment location, including rural enterprises, and tourist development. Of particular note is Policy LPP1: Location of Employment Land, which provides for new employment sites as follows:
- 15 ha of Employment Policy Area including a community sports facility as an extension to Springwood Drive industrial area.
  - 18.5 ha Innovation and Enterprise Business Park for B1, B2 and B8 uses, and possibly a hotel (C8 use), with 7 ha of structural landscaping, on land to the west of Great Notley.
  - 6.8 ha Employment Policy Area as an extension to Eastways Industrial Estate, Witham.
  - Up to 11 ha Employment Policy Area as an extension to Bluebridge Industrial Estate, Halstead.
  - Major Business Park at the West Braintree Garden Community.
  - Major Business Park at the Marks Tey Garden Community.
- 2.10 The shops and services policies (Policies LPP7 to LPP15) set out the planning policy approach to the District's town, district and local centres, noting that the primary location for town centres uses will be Braintree, Halstead and Witham. They define the primary shopping areas, district centres, plus a range of retail allocations, a leisure and entertainment area, and retail warehouse development. They also identify Newlands Precinct and Rickstones Neighbourhood Centre, both in Witham, as Comprehensive Development Areas.
- 2.11 The 'Homes' policies (Policies LPP16 to LPP35) cover a wide range of housing related matters. Of particular relevance is Policy LPP16: Housing Provision and Delivery, because it sets out the numbers of dwellings to be delivered in the plan period, as follows (minimum numbers of homes):
- West of Braintree New Garden Community: 2,500 homes.
  - Marks Tey New Garden Community: 1,150 homes.

- East of Great Notley (in Black Notley Parish): 2,000 homes (identified as a Strategic Growth Location in Policy LPP17).
  - Land East of Broad Road, Braintree: 1,000 homes (identified as a Strategic Growth Location in Policy LPP18).
  - Former Towerlands Park site, Braintree: 600 homes (identified as a Strategic Growth Location in Policy LPP19).
  - Land at Feering: 1,000 homes (identified as a Strategic Growth Location in Policy LPP20).
  - Wood End Farm, Witham (Hatfield Peverel Parish): 450 homes (identified as a Strategic Growth Location in Policy LPP21).
  - North West Braintree – Panfield Land: 600 homes.
  - South West Witham – Lodge Farm (partly in Hatfield Peverel Parish): 750 homes.
  - North East Witham – Forest Road (Rivenhall Parish): 370 homes.
- 2.12 Policy LPP16 also states that sites suitable for more than 10 homes are allocated on the Proposals Map and are located in the following areas:
- Main towns (Braintree with Bocking and Great Notley, Witham, and Halstead): 1,700 homes.
  - Service Villages (Coggeshall, Earls Colne, Hatfield Peverel, Kelvedon with Feering, and Sible Hedingham): 800 homes.
  - Villages (All other villages with a development boundary): 500 homes.
- 2.13 In addition to the Strategic Growth Locations listed above, two Comprehensive Development Areas are identified, being LPP22 Land East of Halstead High Street, and LPP23: Factory Lane West/Kings Road.
- 2.14 Policies LPP24 to LPP27 address types of housing, including affordable housing, affordable housing in rural areas, specialist housing and gypsy and traveller and travelling showpeople accommodation.
- 2.15 Policies LPP28 to LPP35 provide policy guidance on housing types and densities, residential alterations, extensions and outbuildings, replacement dwellings in the countryside, rural workers dwellings in the countryside, residential conversion of buildings in the countryside and garden extensions.
- 2.16 The Transport and Infrastructure Chapter of the Local Plan (Policies LPP36 to LPP41) encourages sustainable access for all, guidance on parking provision, safeguards protected lanes, allocates Transport-Related Policy Areas for gateways into Braintree, and broadband. Policy LPP40 safeguards land from development for:
- A131 Halstead Bypass.
  - A131 Sudbury Western Bypass.
  - A new road connecting Springwood Drive with Panfield Land.
  - Second road access to Witham Station Car Park from Station Road.
  - A new road link to Cut Throat Lane/Albert Road, Witham.
  - A new link road between Inworth Road and A12 Kelvedon North junction and improvements to the A12 junctions as agreed by the Highways Authority and Highways England.

## **Chapter 7: Creating better places**

- 2.17 Chapter 7 of the Local Plan comprises 14 policies (Policies LPP42 to LPP55). The policies cover topics such as the approach to the built and historic environment including archaeology, development in conservation areas, and the demolition of listed buildings, health and wellbeing impact assessment, equestrian facilities, and the layout and design of development. It also provides guidance and standards on the provision for open space, sport and recreation, as well as the degree of protection given to educational establishments and the retention of local community services and facilities.

## **Chapter 8: The District's natural environment**

- 2.18 Chapter 8 of the Local Plan comprises 13 policies (Policies LPP56 to LPP68) These include an overarching policy relating to the natural environment (LPP56), and two policies specifically addressing biodiversity, being Policy LPP57 Protected Species, and Policy LPP58: Enhancement, Management and Monitoring of Biodiversity.
- 2.19 The remainder of the policies in this Chapter of the Local Plan, address landscape matters, green buffers, pollution, energy efficiency, renewable energy, the water environment, and lighting.

## 3 Methodology

- 3.1 HRA Screening of Section 2 of the Braintree Publication Draft Local Plan has been undertaken in line with current available guidance and to meet the requirements of the Habitats Regulations. The tasks that have been undertaken during the screening stage of the HRA are described in detail below.
- 3.2 As described in **Chapter 2**, HRA work has previously been undertaken in relation to a Stage 1 Scoping Report and the Emerging Core Strategy. The same broad approach has been taken to the screening of the Local Plan (as described below).

### Scope of the HRA Screening

- 3.3 This HRA Report only relates to Section 2 of the Braintree Publication Draft Local Plan, which is specific to Braintree District (i.e. Chapters 4 to 9).
- 3.4 Chapter 3 of the Braintree Publication Draft Local Plan, Shared Strategic Plan (Part 1 for Local Plans) (which encompasses the North Essex Authorities of Braintree, Colchester and Tendring), has been subject to a separate HRA, although this HRA refers to the Shared Strategic Plan with respect to potential in-combination effects (see below).

### Identification of European sites which may be affected by the Local Plan

- 3.5 In order to initiate the search of European sites that could potentially be affected by a Local Plan, it is established practice in HRAs to consider European sites within the local planning authority area covered by the Local Plan, and also within a buffer distance of 10km to 20km of the boundary of the Local Plan area.
- 3.6 The HRA of the Braintree SADMP used a distance of 20km and it is considered that this is sufficiently precautionary to be used for the HRA Screening of Section 2 of the Braintree Publication Draft Local Plan, not least because it means that the potential area of influence extends to the coastal European sites to the east of Braintree District. However, consideration was given to extending this distance where pathways for effects of development to travel further were identified.

### Ecological attributes of the European sites

- 3.7 The designated features and conservation objectives of the European sites, together with current pressures on and potential threats, was drawn from the Standard Data Forms for SACs and SPAs and the Information Sheets for Ramsar Wetlands published on the JNCC website<sup>11</sup> as well as Natural England's Site Improvement Plans<sup>12</sup> and the most recent conservation objectives published on the Natural England website (most were published in 2014)<sup>13</sup>.
- 3.8 An understanding of the designated features of each European site and the factors contributing to its integrity has informed the assessment of the potential for likely significant effects (LSE's) as a result of Section 2 of the Braintree Publication Draft Local Plan, and where LSE's could not be

---

<sup>11</sup> [www.jncc.defra.gov.uk](http://www.jncc.defra.gov.uk)

<sup>12</sup> <http://publications.naturalengland.org.uk/category/5458594975711232>

<sup>13</sup> <http://publications.naturalengland.org.uk/category/6490068894089216>

ruled out, whether they would result in adverse effects on site integrity either alone or in combination.

## Assessment of 'likely significant effects' of the Braintree Local Plan

- 3.9 As required under Regulation 102 of the Conservation of Habitats and Species Regulations 2010<sup>14</sup> an assessment of the 'likely significant effects' of the Local Plan has been undertaken. 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 policy or site allocation would have a significant effect on the integrity of a European site.

### Interpretation of 'likely significant effect'

- 3.10 Relevant case law helps to interpret when effects should be considered as being likely to result in a significant effect, when carrying out a HRA of a plan.
- 3.11 In the Waddenzee case<sup>15</sup>, 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).
- 3.12 An opinion delivered to the Court of Justice of the European Union<sup>16</sup> commented that:
- 3.13 *"The requirement that an effect in question be 'significant' exists in order to lay down a de minimus 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."*
- 3.14 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 minimus*; referring to such cases as those *"which 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'.

## Mitigation provided by the Local Plan

- 3.15 Some of the potential likely significant effects of the Section 2 of the Braintree Publication Draft Local Plan could be mitigated through the implementation of other proposals in the Local Plan itself. The extent to which mitigation may be achieved through the Local Plan was considered during the screening process and has influenced the screening conclusions (see **Chapter 5**).

## In-combination effects

- 3.16 Regulation 102 of the Amended Habitats Regulations 2010 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*

---

<sup>14</sup> SI No. 2010/490

<sup>15</sup> ECJ Case C-127/02 "Waddenzee" Jan 2004.

<sup>16</sup> Advocate General's Opinion to CJEU in Case C-258/11 Sweetman and others v An Bord Pleanala 22nd Nov 2012.

*management of the site*". Therefore, as well as considering the likely effects of the Local Plan alone on European sites, it is necessary to consider whether there may be significant effects from the Local Plan in combination with other plans or projects.

- 3.17 In accordance with recent guidance on HRA<sup>17</sup>, the potential for in-combination effects need only be considered for effects of Section 2 of the Braintree Publication Draft Local Plan identified as unlikely to have a significant effect alone, but which could combine with the effects of other plans and projects to produce a significant effect.
- 3.18 The first stage in identifying potential 'in-combination' effects involves identifying which other plans and projects in addition to the Section 2 of the Braintree Publication Draft Local Plan may affect the European sites that will be the focus of the HRA. There are a large number of plan and strategy documents which could be considered. We have focussed our attention on county and district level plans which provide for development in Braintree District and districts within which the scoped-in European sites are located, and reviewed the findings of any associated HRA work for these plans, where available. We also reviewed the National Infrastructure Planning website but no projects were found that should also be considered for their potential in-combination effects on the European sites scoped into this HRA.
- 3.19 It should be noted that the focus of this HRA is on Section 2 of the Braintree Publication Draft Local Plan (i.e. the Braintree District specific parts of the Local Plan). The plans and projects which we considered for their potential in-combination effects were as follows:
- The North Essex Authorities Shared Strategic Part 1 for Local Plans.
  - Babergh Core Strategy & Policies (2011-2031) Local Plan.
  - Chelmsford City Council Core Strategy and Development Control Policies DPD.
  - Colchester Core Strategy Review.
  - Maldon District Local Development Plan.
  - Rochford District Core Strategy.
  - Tendring District Local Plan.
  - Essex Minerals Local Plan.
  - Essex Waste Local Plan.
  - Essex Local Transport Plan 3 2011-2026 (LTP3).
  - Bramford to Twinstead Tee 400kV Connection.
- 3.20 The review is set out in **Appendix 2**.

## Appropriate Assessment

- 3.21 The Appropriate Assessment stage of HRA focuses on those impacts judged likely at the screening stage to have a significant effect, and seeks to conclude whether they would result in an adverse effect on the on the integrity of the qualifying features of a European site(s), or where insufficient certainty regarding this remains. The integrity of a site depends on the site being able to sustain its 'qualifying features' across the whole of the site and ensure their continued viability.

---

<sup>17</sup> DTA: The Habitats Regulations Assessment Handbook: <http://www.dtapublications.co.uk/handbook/browse>

## 4 Information on European sites

- 4.1 This chapter identifies the European sites to be included in the HRA of Section 2 of the Braintree Publication Draft Local Plan, drawing from the findings of previous HRA work which has been subject to consultation with Natural England.

### European sites potentially affected by the Local Plan

- 4.2 In the HRA work undertaken previously for the SADMP, the following 13 European sites were included in the assessment on the basis that they might be affected by the plan document:
- Abberton Reservoir SPA and Ramsar sites.
  - Blackwater Estuary SPA and Ramsar sites.
  - Colne Estuary SPA and Ramsar sites.
  - Crouch and Roach Estuaries SPA and Ramsar sites.
  - Essex Estuaries SAC.
  - Hamford Water SPA and Ramsar sites.
  - Stour and Orwell Estuaries SPA and Ramsar sites.
- 4.3 There are no European sites within Braintree District but potential pathways exist for development within the District to affect sites outside of Braintree District. The HRA of the SADMP considered all European sites within 20km of Braintree District boundary as a starting point. LUC repeated this exercise and also considered whether any more distant European sites are functionally linked to the District and whether any of those within 20 km could be scoped out because of an absence of pathways by which effects on the integrity of European sites from development might occur. The locations of the European sites are shown in **Figure 4.1**.
- 4.4 Three sites were not included in the HRA of the SADMP that lie within 20 km of the Braintree District boundary. It is not clear why these were not included, so these are considered below:
- Dengie SPA: The closest point of this site is just over 17km from the Braintree District boundary. This forms part of the Essex Estuaries European Marine Site, and therefore it is considered that it should be included in the HRA Screening.
  - Dengie Ramsar site: As with the SPA above, the closest point of this site is just over 17km from the Braintree District boundary. This forms part of the Essex Estuaries European Marine Site, and therefore it is considered that it should be included in the HRA Screening.
  - Devil's Dyke SAC: The closest point of this 8 ha site is nearly 18km from the Braintree District boundary. Devil's Dyke holds one of the best and most extensive areas of species-rich chalk grassland in Cambridgeshire. The grassland is of a type characteristic to chalklands of south, central and eastern England and represents a habitat type now very restricted in distribution and extent throughout its British range. The Dyke is an ancient linear earthwork comprising a deep ditch and high bank, originally colonised by plants from adjacent calcareous grassland. For this reason the Dyke is important as one of the few remaining areas still supporting these relict chalkland vegetation communities, once traditionally maintained by sheep grazing. The Site Improvement Plan states that the key vulnerabilities and factors affecting site integrity are inappropriate scrub control, and nitrogen deposition which exceeds the site-relevant critical load for ecosystem protection and hence there is a risk of harmful effects. However, the sensitive features are currently considered to be in favourable condition on the site. Devil's Dyke SAC is close to Newmarket, and is well over 20km away from the main development locations in the Braintree Publication Draft Local Plan. The only possible effect from development proposed in the Local Plan would be nitrogen deposition from traffic

associated with new development, but there are no strategic roads leading to Newmarket from Braintree, and it is therefore highly unlikely that any additional traffic of significance would pass close to this site. Therefore, Devil's Dyke SAC is not included in this HRA Screening assessment.

- 4.5 Hamford Water SPA and Ramsar were included in the HRA of the SADMP. However, these sites, together with the Hamford Water SAC are located over 29km from the Braintree District boundary and this distance is considered sufficient to rule out the potential for likely significant effects as a result of Section 2 of the Braintree Publication Draft Local Plan. Recreational impacts in particular can originate from considerable distance from European sites. However, visitor monitoring at Hamford Water undertaken by Colchester Borough Council to inform the HRAs of the Colchester Section 2 Local Plan and the Shared Strategic Part 1 Local Plan has identified an 8km ZOI within which the majority of recreational visits originate from. In light of this, impacts on the Hamford Water SAC, SPA and Ramsar have been ruled out and this site is not considered further in this assessment.

## Ecological attributes of the European sites

- 4.6 The designated features and conservation objectives of the European sites, together with current pressures on and potential threats to these are described in **Appendix 1**.

# Braintree DC SA & HRA of Local Plan

**Figure 4.1: European sites within 20km of Braintree District**

- Braintree District
- Surrounding Local Authorities
- 20km buffer of Braintree District

## European Site

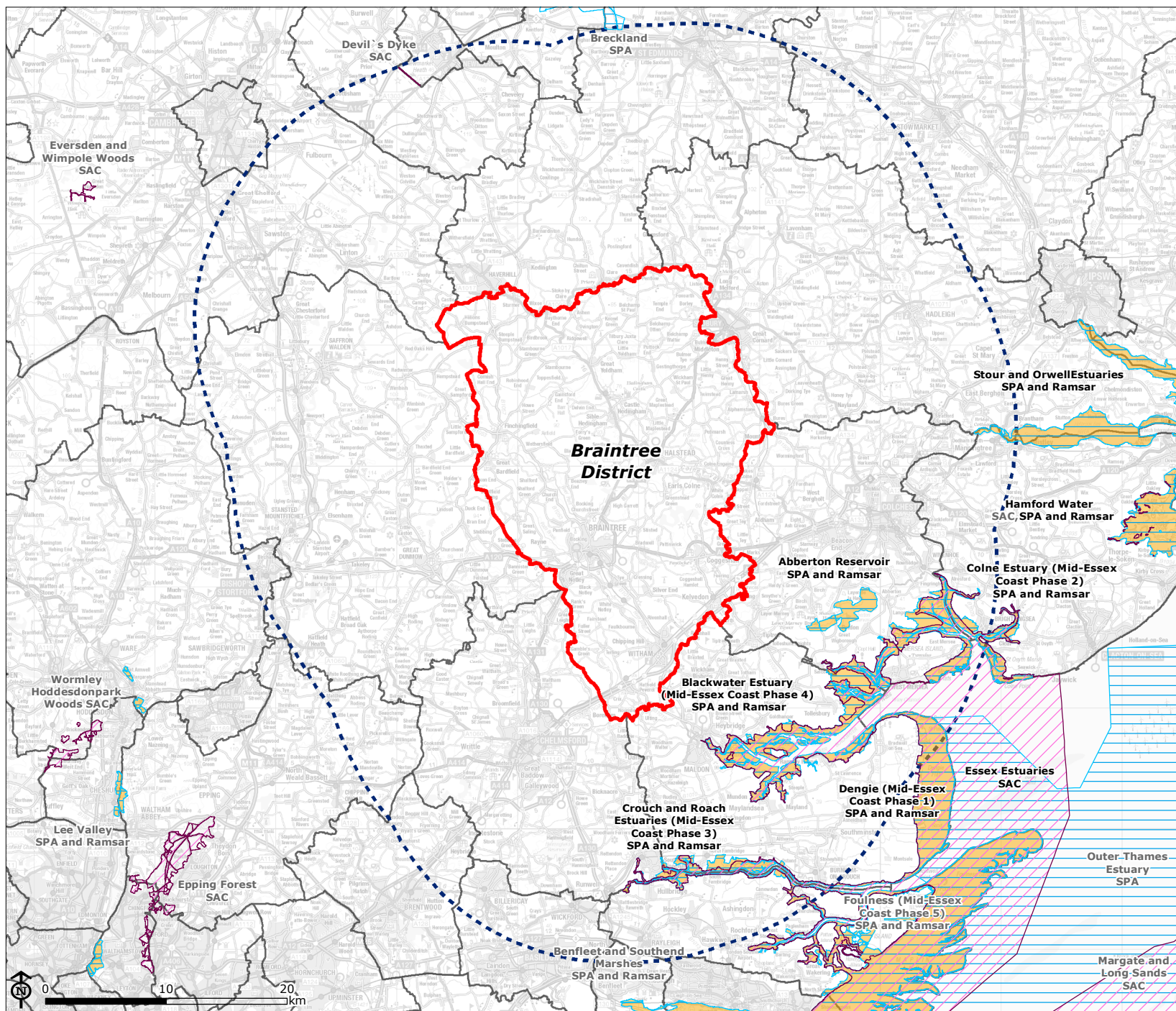
- SAC
- SPA
- Ramsar

European sites included in the scope of the HRA screening shown in **bold**

Source: JNCC, OS

Map Scale @ A4: 1:450,000

**LUC**



## 5 Screening assessment

### Introduction

- 5.1 This section of the HRA Report provides the findings of the Screening assessment. It commences with a summary of the key vulnerabilities and factors affecting site integrity, as presented in **Appendix 1**.
- 5.2 The HRA Screening then assesses whether Section 2 of the Braintree Publication Draft Local Plan alone could give rise to likely significant effects in relation to the key vulnerabilities and factors affecting site integrity identified, before considering the potential for in-combination effects with other plans or projects.

### Key vulnerabilities and factors affecting site integrity

- 5.3 A summary of the key vulnerabilities and factors affecting site integrity for each of the European sites covered by this HRA Screening is shown in **Table 5.1**. A brief description of each is provided below:
- **Siltation** – high sediment loads due to agricultural practices.
  - **Recreational disturbance** – breeding and overwintering waterbirds are susceptible to human disturbance from a range of land and water-based activities.
  - **Built development** – indirect effects of development, for example on supporting habitat close to European sites, and the cumulative effects of a number of small developments within close proximity of a European site.
  - **Changes in species distributions** – sometimes unexplained, species decline in designated populations may be due to changes in their distributions or population levels at a national or continental scale, possibly linked to climate change.
  - **Bird strike** – for example, death of designated species from collision with overhead powerlines near reservoir.
  - **Water pollution** – increases in nutrients can lead to eutrophic conditions and resulting in toxic blue-green algae.
  - **Air pollution** – where atmospheric nitrogen deposition exceeds the relevant critical loads there is a risk of harmful effects to qualifying species.
  - **Coastal squeeze** - much of the Essex coastline has coastal defences that prevent intertidal habitats from shifting landward in response to rising sea levels, which can lead to the degradation and reduction of suitable habitat used by qualifying overwintering and breeding birds for feeding, roosting and/or nesting.
  - **Inappropriate coastal management** – due to the presence of existing hard sea defences, there is little scope for adaptation to rising sea levels, with freshwater habitats likely to be inundated by seawater.
  - **Invasive species** – various invasive species can impact upon native communities through competition for resources and predation, or by affecting the growth habitats supporting qualifying species.
  - **Fishing and fisheries** – recreational bait digging may impact waterbirds or damage the intertidal mudflats and sandflats, and certain forms of commercial fishing can damage inshore marine habitats and the bird species dependent on the communities they support.

- **Erosion** – this is a natural process but can be exacerbated by climate change, fixed sea defences, port development and maintenance dredging.

- 5.4 The Braintree Publication Draft Local Plan is considered unlikely to result in changes in water levels at the European sites because, with the exception of Abberton Reservoir SPA/Ramsar, there are no plans to meet the increased water demand in the area via abstraction from these European sites.
- 5.5 Abberton Reservoir has historically experienced lower water levels and higher demand from public use. However, from 2009 to 2012 the Abberton Reservoir underwent an expansion scheme to meet the predicted rise in water demand. The HRA of the Preferred Options version of the Braintree Section 2 Local Plan noted that Essex and Suffolk Water (ESW), in conjunction with Natural England, recently completed the expansion of Abberton Reservoir in order to cater for increasing demand. The environmental effects of this were considered in the Braintree Water Cycle Study<sup>18</sup>, and the ESW Water Resource Management Plan<sup>19</sup>. The capacity of Abberton Reservoir has been increased by 58%<sup>20</sup>. The latest ESW Water Resource Management Plan states that the Abberton resource scheme means that the Essex Water Resource Zone is now in surplus until 2040<sup>21</sup>. Therefore, the Braintree Publication Draft Local Plan is not predicted to result in changes in water levels at the European sites and is not considered further in this HRA assessment.

---

<sup>18</sup> Hyder (2011) Braintree District Council Water Cycle Study Stage 2 Detailed Water Cycle Study. Final Report.

<sup>19</sup> Essex and Suffolk Water (January 2010) Final Water Resources Management Plan 2010 - 2035

<sup>20</sup> [http://www.waterprojectsonline.com/case\\_studies/2012/E&S\\_Abberton\\_2012.pdf](http://www.waterprojectsonline.com/case_studies/2012/E&S_Abberton_2012.pdf)

<sup>21</sup> Essex and Suffolk Water (October 2014) Final Water Resources Management Plan 2014

<b>Table 5.1 Key vulnerabilities and factors affecting site integrity</b>	<b>Siltation</b>	<b>Recreational disturbance</b>	<b>Built development</b>	<b>Changes in species distribution</b>	<b>Bird strike</b>	<b>Water pollution</b>	<b>Air pollution</b>	<b>Coastal squeeze</b>	<b>Inappropriate coastal management</b>	<b>Invasive species</b>	<b>Fishing and fisheries</b>	<b>Erosion</b>
Abberton Reservoir SPA	✓	✓	✓	✓	✓	✓	✓					
Abberton Reservoir Ramsar	✓	✓	✓	✓	✓	✓	✓					
Blackwater Estuary (Mid-Essex Coast Phase 4) SPA		✓	✓	✓			✓	✓		✓	✓	
Blackwater Estuary (Mid-Essex Coast Phase 4) Ramsar		✓	✓	✓			✓	✓		✓	✓	
Colne Estuary (Mid-Essex Coast Phase 2) SPA		✓	✓	✓			✓	✓		✓	✓	
Colne Estuary (Mid-Essex Coast Phase 2) Ramsar		✓	✓	✓			✓	✓		✓	✓	
Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA		✓	✓	✓			✓	✓		✓	✓	
Crouch and Roach Estuary (Mid-Essex Coast Phase 3) Ramsar		✓	✓	✓			✓	✓		✓	✓	
Dengie (Mid-Essex Coast Phase1) SPA		✓	✓	✓			✓	✓		✓	✓	

<b>Table 5.1 Key vulnerabilities and factors affecting site integrity</b>	<b>Siltation</b>	<b>Recreational disturbance</b>	<b>Built development</b>	<b>Changes in species distribution</b>	<b>Bird strike</b>	<b>Water pollution</b>	<b>Air pollution</b>	<b>Coastal squeeze</b>	<b>Inappropriate coastal management</b>	<b>Invasive species</b>	<b>Fishing and fisheries</b>	<b>Erosion</b>
Dengie (Mid-Essex Coast Phase1) Ramsar		✓	✓	✓			✓	✓		✓	✓	
Essex Estuaries SAC		✓	✓	✓			✓	✓		✓	✓	
Stour and Orwell Estuaries SPA		✓	✓	✓			✓	✓	✓	✓	✓	
Stour and Orwell Estuary Ramsar		✓	✓	✓			✓	✓	✓	✓	✓	✓

## Screening assessment

- 5.6 There are no European sites within Braintree District, and therefore it is impossible for the European sites to be directly affected by development taking place within the District as proposed in Section 2 of the Braintree Publication Draft Local Plan (see Table 5.2, which shows the shortest distance between Braintree District boundary, and the European site boundary).

**Table 5.2: Distance between Braintree District and European Sites**

European site	Shortest distance from Braintree District boundary and European site boundary
Essex Estuaries SAC	3.8 km
Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar site	3.8 km
Abberton Reservoir SPA and Ramsar site	5.5 km
Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA and Ramsar site	11.4 km
Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar site	12.0 km
Dengie (Mid-Essex Coast Phase 1) SPA and Ramsar site	17.2 km
Stour and Orwell Estuaries SPA and Ramsar site	16.6 km

- 5.7 The only possible likely significant effects arising from Section 2 of the Braintree Publication Draft Local Plan will be indirect effects, either alone from the Local Plan or in-combination with other plans or projects. It should be noted that a significant amount of the proposed development in Section 2 of the Braintree Publication Draft Local Plan will be a much greater distance from the European sites than the distances given in Table 5.2. For example, development at Braintree itself including Great Notley, and at the West of Braintree new Garden Community (accounting for 6,700 of the proposed homes) will be over 15 km away from the nearest European site. The proposed development locations closest to the European sites (being Abberton Reservoir SPA and Ramsar site and Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar site) are those at Witham and Feering (totalling 2,570 homes), and the new Garden Community at Marks Tey (1,150 homes in Braintree in the plan period, with 2,500 homes in total in the plan period when combined with the homes to be delivered in Colchester Borough).
- 5.8 The key vulnerabilities or factors affecting site integrity are considered in turn below, and conclusions reached on the potential for Section 2 of the Braintree Publication Draft Local Plan to give rise to likely significant effects, either alone or in-combination with plans or projects.

### Siltation

- 5.9 According to the JNCC and Natural England data, siltation currently only affects Abberton Reservoir SPA and Ramsar site and is a result of high sediment loads due to agricultural practices. The Braintree District Local Plan will have very little influence on agricultural practices, and development within Braintree District arising as a result of Section 2 of the Braintree Publication Draft Local Plan is highly unlikely to have any effect on sedimentation of the European site which is over 5km from Braintree District boundary. Therefore, Section 2 of the Braintree Publication Draft Local Plan will not have likely significant effects on European sites with respect to siltation.

### **Built development**

- 5.10 The effects of built development were identified as key vulnerabilities and factors affecting site integrity for all the European sites within 20km of Braintree District. The potential future threats are to designated waterbirds if farmland providing supporting habitat close to the SPA is lost to development, and disturbance effects arising from the presence and use of development (as opposed to disturbance from residents of new development visiting European sites). The cumulative effects of numerous, small and often 'non-standard' developments can also be an issue.
- 5.11 Braintree District is nearly 4km distance from the closest European sites with mobile species, Blackwater Estuary SPA and Ramsar site, and their qualifying species are associated with estuarine habitats, wetlands and open water. The nearest major development location proposed in Section 2 of the Braintree Publication Draft Local Plan is approximately 8km distance from the European site. It is therefore unlikely that qualifying species will be making significant use of supporting habitat within Braintree District that is proposed for development. Therefore, built development with Braintree District arising as a result of Section 2 of the Braintree Publication Draft Local Plan is unlikely to affect such habitat and therefore will not give rise to likely significant effects on European sites.

### **Changes in species distributions**

- 5.12 Changes in species distributions have been identified as a key vulnerability or factor affecting site integrity for all the European sites within 20km of Braintree District boundary. The causes for declines or changes in species distributions are often unexplained, but primarily affect qualifying bird species, and may be due to changes in their distributions or population levels at a national or continental scale, possibly linked to climate change.
- 5.13 Although potentially influenced by national and international factors, changes in species distributions are likely to be contained within or close by the habitats of the European sites with which they are associated. These habitats can all be found some distance from the Braintree District border. Therefore Section 2 of the Braintree Publication Draft Local Plan is unlikely to give rise to likely significant effects on the European sites.

### **Bird strike**

- 5.14 The death of designated bird species from collision with overhead powerlines is a key vulnerability or factor affecting site integrity for Abberton Reservoir SPA and Ramsar site.
- 5.15 There is no reason to believe that development to be delivered as a result of Section 2 of the Braintree Publication Draft Local Plan will result in structures that will result in bird strike, and therefore it is concluded that Section 2 of the Braintree Publication Draft Local Plan will not give rise to likely significant effects on European sites as a result of bird strike.
- 5.16 Should individual schemes come forward during the plan period that could give rise to bird strike, such as overhead powerlines or wind turbines, these are most appropriately assessed at the project level, given that Section 2 of the Braintree Publication Draft Local Plan does not specify where such energy infrastructure development should take place.

### **Water pollution**

- 5.17 Water pollution was identified as being a key vulnerability or factor affecting site integrity only with respect to Abberton Reservoir SPA and Ramsar site. Water stored in the reservoir is high in nutrients (eutrophic) as it comes from intensively farmed catchment areas. Resulting algal blooms may include toxic blue-green algae that can kill wildfowl, though no significant mortality has been recorded.
- 5.18 Section 2 of the Braintree Publication Draft Local Plan will have no influence on agricultural practices, and development within Braintree is highly unlikely to have any effect on sedimentation of Abberton Reservoir which is over 5km from Braintree District boundary. Therefore, it is concluded that Section 2 of the Braintree Publication Draft Local Plan will not give rise to likely significant effects on the European sites.

## **Air pollution**

- 5.19 This issue was considered to be of relevance to all the European sites, and is related to nitrogen deposition levels exceeding the site-relevant critical load for ecosystem protection. At Abberton Reservoir SPA and Ramsar site, the 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. For all the Essex estuaries European sites, 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 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.
- 5.20 The main source of air pollution arising as a result of Section 2 of the Braintree Publication Draft Local Plan will be emissions from traffic associated with the proposed development. However, none of the strategic roads running from or through Braintree District are within 200 metres of the identified European sites<sup>22</sup>. It is unlikely that the destinations within 200m of the European sites will generate significant increases in journeys from Braintree District, which is some distance from those sites. In particular, commuting journeys are more likely to be contained within the District (focusing on Braintree, Halstead and Witham), or associated with larger settlements such as Colchester and Chelmsford, neither of which are within 200 metres of the European sites, and beyond these to London, where journeys become more dispersed. In any event, the decline in the number of breeding terns is believed to be due to other localised factors rather than nitrogen deposition.
- 5.21 It is concluded that Section 2 of the Braintree Publication Draft Local Plan will not give rise to likely significant effects on the European sites.

## **Coastal squeeze**

- 5.22 Coastal squeeze is identified as a key vulnerability or factor affecting site integrity for all the European sites within 20km of Braintree District boundary, with the exception of Abberton Reservoir SPA and Ramsar site. Coastal defences along much of the Essex coastline prevent intertidal habitats from shifting landward in response to rising sea levels and increasing frequency in coastal and tidal surges, as a result of climate change. The combination of climate change, sea defences and subsidence are likely to contribute to coastal squeeze, which will lead to the degradation and reduction of suitable habitat used by overwintering and breeding birds for feeding, roosting and/or nesting. Unless changes are made to the management of the coastline, habitats supporting qualifying SPA birds will be lost or degraded through coastal squeeze, sedimentation and reduced exposure. '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.
- 5.23 Braintree District is a land-locked authority, and is a considerable distance from the estuarine sites. It is highly unlikely that land within Braintree District will be needed for managed realignment schemes. As a result Section 2 of the Braintree Publication Draft Local Plan is unlikely to give rise to likely significant effects on the European sites.

## **Inappropriate coastal management**

- 5.24 Inappropriate coastal management is identified as being a key vulnerability or factor affecting site integrity for the Stour and Orwell Estuaries SPA and Ramsar site. It is closely linked to the coastal squeeze issue described above. Due to the presence of existing hard sea defences, such as sea walls, there is little scope for adaptation to rising sea levels. Any freshwater habitats behind failing seawalls are likely to be inundated by seawater, which would result in the loss of this habitat within the SPA.
- 5.25 Braintree District is a land-locked authority, and is a considerable distance from the estuarine sites. It is unlikely that land within Braintree District will be needed to compensate for the loss of freshwater habitats closely associated with the Stour and Orwell Estuaries SPA and Ramsar given

---

<sup>22</sup> 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.

that it is nearly 20km distance from Braintree District boundary. As a result Section 2 of the Braintree Publication Draft Local Plan is unlikely to give rise to significant effects on the European sites.

### **Invasive species**

- 5.26 Invasive species are affecting a number of the Essex estuarine European sites. For the Blackwater Estuary (Mid-Essex Coast Phase 4), Colne Estuary (Mid-Essex Coast Phase 2), Crouch and Roach Estuaries (Mid-Essex Coast Phase 3), Dengie (Mid-Essex Coast Phase 1) SPA and Ramsar sites, and Essex Estuary SAC, 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. Other non-native invasive species such as the American whelk tingle *Urosalpinx cinerea* and Slipper limpet *Crepidula fornicata* are known to occupy subtidal muddy habitats, potentially impacting native communities through competition for resources and predation. Invasive common cord grass may adversely affect plant species for which the Essex Estuaries SAC is designated, as well as other species and habitats, including feeding and roosting areas of SPA bird species. For the Stour and Orwell Estuaries SPA and Ramsar site, an increase in *Spartina anglica* may be affecting the growth of *Spartina maritima*, a key habitat feature for qualifying bird roosting and feeding areas of saltmarsh and mudflat.
- 5.27 Given the distance between Braintree District boundary and the European sites being affected by invasive species, and the lack of relationship between proposed development within the District and the introduction of the invasive species of concern, it is highly unlikely that development proposed in Section 2 of the Braintree Publication Draft Local Plan will give rise to likely significant effects with respect to this issue.

### **Fishing and fisheries**

- 5.28 There are two types of fishing related activity that have been identified as key vulnerabilities or factors affecting site integrity for the European sites – recreational fishing related activity and commercial fishing.
- 5.29 Recreational bait digging may impact waterbirds (e.g. by reducing prey availability), or damaging the intertidal mudflats and sandflats and associated communities. The extent of the activity and potential impacts on site features are not currently well understood. Recreational fishing has been identified as being an issue for the Blackwater Estuary (Mid-Essex Coast Phase 4), Colne Estuary (Mid-Essex Coast Phase 2), Crouch and Roach Estuaries (Mid-Essex Coast Phase 3), and Dengie (Mid-Essex Coast Phase 1) SPA and Ramsar sites, and Essex Estuary SAC.
- 5.30 Certain forms of commercial fishing, e.g. bottom towed fishing gear, can be very damaging to inshore marine habitats and the bird species dependent on the communities they support. Any 'amber or green' categorised commercial fishing activities in European Marine Sites are assessed by Kent and Essex Inshore Fisheries Conservation Authority (IFCA). This assessment takes into account any in-combination effects of amber activities and/or appropriate plans or projects. Commercial fishing is also potentially affecting the European sites that could be affected by recreational fishing activity, plus Stour and Orwell Estuaries SPA and Ramsar sites.
- 5.31 It is unlikely that Section 2 of the Braintree Publication Draft Local Plan will give rise to likely significant effects on European sites as a result of commercial fishing operations, given the lack of relationship between development proposed in Section 2 of the Braintree Publication Draft Local Plan and the fishing industry.
- 5.32 There is the potential for residents of the new homes proposed in Section 2 of the Braintree Publication Draft Local Plan to engage in recreational fishing activity, taking into account potential in-combination effects of development proposed in neighbouring plans. However, the homes themselves are a response to population growth that is happening irrespective of development proposed in the Section Local Plan, and the marginal increase in the number of recreational fishing visits to the European sites as a result of development proposed means that likely significant effects are unlikely. Any potential issues arising as a result of Section 2 of the Braintree Publication Draft Local Plan, alone or in-combination with other plans or projects, are best addressed through the management of recreational activity of the European sites (see below).

## Erosion

- 5.33 Erosion was considered to be a key vulnerability or factor affecting site integrity for the Stour and Orwell Estuary Ramsar site. The Essex Coast and Estuaries Coastal Habitat Management Plan (CHaMP) (Anon. 2002) covers the site and it is expected to inform the Shoreline Management Plan as well as Local Plan policies. The possibility of managed realignment schemes to address erosion impacts may be considered. For the Stour and Orwell Estuary Ramsar site, erosion is being caused by natural coastal processes exacerbated by fixed sea defences, port development and maintenance dredging. Erosion is being tackled through sediment replacement for additional erosion that can be attributed to port development and maintenance dredging. A realignment site has been created on-site to make up for the loss of habitat due to capital dredging. General background erosion has not been tackled although a Flood Management Strategy for the site is being produced.
- 5.34 Braintree District is a land-locked authority, and is a considerable distance from the European sites where erosion has been identified as a key vulnerability or factor affecting site integrity. It is highly unlikely that land within Braintree District will be needed for managed realignment or recharge schemes. As a result Section 2 of the Braintree Publication Draft Local Plan is unlikely to give rise to likely significant effects on the European sites.

## Recreational Disturbance

- 5.35 Recreational pressures are a key vulnerability or factor affecting site integrity for all the European sites within 20km of Braintree District. Breeding and overwintering waterbirds are susceptible to human disturbance from a range of land and water-based activities, including boating and watersports, walking, dog walking, bait-digging and fishing (see 'fishing and fisheries' above), and wildfowling - as well as low-flying aircraft (e.g. military aircraft).
- 5.36 Although now dated (published 05 May 2006), the JNCC Standard Data Forms provide some more information relevant to recreational disturbance for some of the estuarine European sites, as do the Site Improvement Plans:
- For the Blackwater Estuary (Mid-Essex Coast Phase 4), the JNCC Standard Data Form states that control of motorised craft (with particular reference to jet-skis) is being addressed through the Blackwater Estuary Management Plan. Enforcement of speed limits should ensure that roosting birds are not subjected to disturbance and saltmarsh habitats are protected from damage by jet-skis.
  - For the Crouch and Roach Estuaries (Mid-Essex Coast Phase 3), the Standard Data Form states that some disturbance of feeding and roosting waterfowl is likely through recreational use of sea wall footpaths by dog walkers, bird watchers etc. but this and other recreational issues will be tackled through the management scheme for this European marine site. Water-skiing is largely controlled by the Crouch Harbour Authority.
  - For the Colne Estuary (Mid-Essex Coast Phase 2), the Standard Data Form states that the site is vulnerable to recreational pressures which can lead to habitat damage (salt marsh and sand dunes) and to disturbance of feeding and roosting waterfowl, and that pressures for increased use and development of recreational facilities are being addressed through the planning system and under the provisions of the Habitat Regulations. It also states that jet- and water-skiing are largely contained by the Harbour Authorities.
  - The Site Improvement Plan for Abberton Reservoir states that disturbance at ground level is well controlled by Essex & Suffolk Water, though there is occasional trespassing, and that it is disturbance from the air by low-flying civilian and military aircraft that is more difficult to manage.
  - The Site Improvement Plan for the Essex Estuaries (1 April 2014), which includes the Blackwater Estuary (Mid-Essex Coast Phase 4) SPA, Colne Estuary (Mid-Essex Coast Phase 2) SPA, Crouch & Roach Estuaries (Mid-Essex Coast Phase 3) SPA, Dengie (Mid-Essex Coast Phase 1) SPA, Essex Estuaries SAC, and the Site Improvement Plan for the Stour and Orwell Estuaries (13 May 2015) SPA, states that 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

- 5.37 The HRA of the SADMP concluded that the Pre-submission version of the SADMP would not be likely to lead to adverse effects on any European sites alone or in-combination with other plans. This conclusion was reached on the basis that the mitigation measures set out in the HRA of the Braintree District Core Strategy, comprising allocations of Suitable Accessible Natural Greenspace (SANG), monitoring site use and enforcing suitable site management are enforced.
- 5.38 This conclusion requires review given that the SADMP was drawn up in the context of Braintree District Core Strategy, which provided for 4,637 net additional dwellings for the period 2009 to 2026. Section 2 of the Braintree Publication Draft Local Plan is providing for a minimum of 14,365 net additional dwellings in the plan period 2016 to 2033, of which 13,093 have yet to receive planning permission.
- 5.39 The closest European sites to Braintree District are Abberton Reservoir SPA and Ramsar site, Essex Estuaries SAC, and the Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar site. Slightly further afield are the Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA and Ramsar and the Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar.
- 5.40 The Stour and Orwell Estuaries SPA and Ramsar site are right at the limit of the 20km distance from Braintree District. Given that the other estuarine European sites are closer to Braintree District and more easily accessible and offer similar recreational experience, it is unlikely that sufficient numbers of residents associated with the additional housing proposed in the Braintree District Draft Local Plan are likely to access the Stour and Orwell Estuaries sites to result in a likely significant effect.
- 5.41 Evidence in relation to visitor patterns to the European sites was collected over the period 2011 to 2013. The European sites covered by the survey and monitoring study were Abberton Reservoir SPA and Ramsar site, Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar site, Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar site, and Stour and Orwell Estuaries SPA and Ramsar site. The study was part of an agreement with Natural England between Colchester Borough, Braintree District and Tendring District in order for the local authorities to be able to conclude no adverse effects on European sites from the plans being prepared by those authorities at that time. The evidence was in the form of a programme of survey and monitoring of visitors at the European sites within Colchester Borough and Tendring District. Colchester Borough Council was contracted to survey and monitor visitors on behalf of all the local authorities throughout the lifetime of the spatial plans. The final report was published in December 2013<sup>23</sup>. The findings of most relevance to this HRA Screening Report are summarised below:
  - 65% of the groups surveyed at Abberton during June 2013 were fairly local travelling 10 miles (c. 16km) or less to Abberton Reservoir. Just over 51% lived in Colchester Borough. 52% of visitors at Abberton Reservoir said that they visited because the site is close to home. However, only 14% of visitors to Abberton Reservoir travelled under 5 miles (8km).
  - The proportion of total visitors surveyed at the estuarine European sites whose origin was Braintree District were a small proportion of the total visitors surveyed at those sites, with the larger proportion of visitors living much closer to the sites in other boroughs and districts.
  - Across all of the sites, 55% of visitors travelled less than 5 miles (8km) to visit. Across all of the sites 'close to home' was the most popular reason that visitors gave for visiting with 49% of total visitors saying they visit sites because the site is close to home. A quarter of total visitors said that their reason for visiting was because of their desire to be close to the coast. This would suggest that the provision of alternative accessible natural greenspace to deter people from visiting sensitive coastal areas in Colchester and Tendring would only have limited success as one of key reasons people visit the sensitive coastal sites in Colchester and Tendring is to be close to the coast, which alternative accessible natural greenspace would not

<sup>23</sup> Colchester Borough Council (December 2013) Habitat Regulations Assessment Survey and Monitoring Programme Spring 2013

be able to replicate. Furthermore, analysis has shown that people are prepared to travel some distance to visit the coast. It may be more beneficial to focus management measures on encouraging visitors to use less sensitive areas within international sites.

- Across all sites, dog walking was the most popular purpose of visiting with 46% of total visits being to dog walk, with 39% to walk. No-one at Abberton Reservoir visited to walk their dogs as dogs are not permitted on the reserve. Dog walking is significant, because of the disturbance factor to bird species.
- A study of disturbance on the Stour and Orwell Estuaries in 2007<sup>24</sup> found that walkers, walkers with dogs, and boats caused the greatest proportion of the disturbance recorded. However, the majority caused no disturbance at all. The study found that birds are most sensitive to relatively infrequent events such as shots, aircraft and bait diggers, which were found to cause the greatest disturbance.

- 5.42 Each European site will typically have a 'Zone of Influence' (ZOI) within which increases in population would be expected to result in Likely Significant Effects. ZOIs are usually established following targeted visitor surveys and the findings are therefore typically specific to each European site (and often to specific areas within a European site). The findings are likely to be influenced by a number of complex and interacting factors and therefore it is not always appropriate to apply a generic or non-specific ZOI to a European Site.
- 5.43 In undertaking the visitor survey work described above, the North Essex Authorities have recognised the importance of establishing robust ZOIs in informing their HRAs of both the Strategic Part 1 for Local Plans, and the HRA assessments of their relevant Section 2 Local Plans, including the assessment detailed herein.
- 5.44 In light of the visitor survey findings undertaken by Colchester Borough Council, the following ZOIs were proposed:
- Abberton Reservoir SPA and Ramsar – 13km
  - Blackwater Estuary SPA and Ramsar (Old Hall Marshes) – 8km
  - Blackwater Estuary SPA and Ramsar (The Strood) – 8km
  - Colne Estuary SPA (Cudmore Grove) – 24km
  - Essex Estuaries SAC (Cudmore Grove) – 24km
  - Stour and Orwell Estuaries SPA and Ramsar (The Walls, and Stour Woods) – 8km
- 5.45 With the exception of the Stour and Orwell, the above ZOI's have been applied within this Screening assessment. With regards to the Stour and Orwell, ongoing discussions between the North Essex Authorities and Natural England have identified discrepancies relating to the findings of an appropriate ZOI for the Stour and Orwell Estuaries SPA and Ramsar. It is understood that a visitor monitoring study of the Stour and Orwell Estuaries SPA and Ramsar site, undertaken by Footprint Ecology to inform a mitigation strategy for the Stour and Orwell being proposed by the Suffolk Authorities, recommends the application of a 13km ZOI. Therefore, in line with a precautionary approach, this greater distance of 13km has been applied as a ZOI in this HRA Screening Assessment. In summary, the following ZOIs in relation to recreational pressure have been applied in this Screening Assessment:
- Essex Estuaries SAC – 24km
  - Colne Estuary SPA and Ramsar – 24km
  - Blackwater Estuary SPA and Ramsar – 8km
  - Abberton Reservoir SPA and Ramsar – 15km
  - Stour and Orwell Estuaries – 13km

---

<sup>24</sup> Ravenscroft, Parker, Vonk & Wright (2007) Disturbance to water birds wintering in the Stour-Orwell estuaries SPA. Suffolk Coast & Heaths Unit.

- 5.46 Housing allocations within Braintree District are located within the ZOI for Essex Estuaries SAC, Colne Estuary SPA and Ramsar, Blackwater Estuary SPA and Ramsar, and Abberton Reservoir SPA and Ramsar.
- 5.47 No visitor monitoring was completed at the Crouch and Roach Estuaries SPA/Ramsar. However, given that the SPA/Ramsar is located over 15km from housing allocations within Section 2 of the Braintree Publication Draft Local Plan, and is separated from Braintree District by the urban settlements of Maldon and Chelmsford, together with the presence of equivalent visitor attractions located in closer proximity to Braintree District (e.g. Blackwater Estuary SPA/Ramsar), the effect of Section 2 of the Braintree Publication Draft Local Plan on this SPA/Ramsar as a result of recreational disturbance is unlikely to be significant.
- 5.48 No visitor monitoring was completed at Dengie SPA/Ramsar. However, given that in terms of travel distance the SPA/Ramsar is located over 37km from the nearest housing allocation within Braintree District it is reasonable to conclude that Braintree District is located outside of the ZOI. Therefore, the effect of Section 2 of the Braintree Publication Draft Local Plan on Dengie SPA/Ramsar as a result of recreational disturbance is unlikely to be significant.
- 5.49 Braintree District is located outside the ZOI for the Stour and Orwell Estuaries SPA/Ramsar and likely significant effects on this site as a result of recreational disturbance is unlikely to result in significant effects.
- 5.50 The new Garden Communities and the Strategic Growth Locations within Braintree District, as proposed in the Shared Strategic Part 1 for Local Plans, all include provision for public open space for formal and informal recreation, with the exception of North West of Braintree (Panfield Lane), South West Witham (Lodge Farm), North East Witham (Forest Road), for which there are no specific policies. However, Policy LPP44: Provision for Open Space, Sport and Recreation sets out the open space standards that are expected of development, with all housing developments of 20 homes or more providing for amenity/natural green space. In addition the two new garden communities within Braintree District will include new country parks, and Policy LPP20: Land at Feering also includes a new country park to the south of the A12. Thus well over half of the housing proposed in the Braintree Publication Draft Local Plan will have recreational space specifically provided as part of the development proposals, and the remaining housing will be required to make contributions by way of payment or provision towards amenity/natural green space.
- 5.51 Given that natural green space will be provided with development, that 'close to home' was the most common reason given for visiting European sites, and that Braintree residents currently make up a small proportion of visitors to the European sites, it is considered that Section 2 of the Braintree Publication Draft Local Plan alone is unlikely to have significant effects on the European sites covered by this HRA Report.

#### *In-combination effects*

- 5.52 The review of the HRAs of nearby local authorities has indicated that recreational disturbance is an issue of relevance to all the Local Plans. The neighbouring authorities of Chelmsford and Maldon through their HRAs have determined that through the provision of open space (acting as an alternative to the use of European sites), likely significant effects can be ruled out. However, the HRAs of the Colchester Section 2 and Tendring Part 2 Local Plans identified likely significant effects both alone and in-combination with other plans as a result of recreational disturbance on Essex Estuaries SAC, Colne Estuaries SPA/Ramsar and Blackwater Estuary SPA/Ramsar.
- 5.53 It is likely that some residents of the new homes within Braintree District will still wish to visit the European sites because they offer a recreational experience that it is not possible to replicate elsewhere in the districts. Some activities, such as bait-digging and some water sports can only take place at the coast. Furthermore, the closer the districts and the developments are to the European sites, the less likely alternative open space will act as an incentive not to visit the European sites concerned.
- 5.54 For Abberton Reservoir SPA and Ramsar site, this is unlikely to be an issue because it is already subject to a strong visitor management regime.
- 5.55 For the Blackwater Estuary SPA and Ramsar, the Colne Estuary SPA and Ramsar, and the Essex Estuaries SAC (i.e. those European sites that form part of the Essex Estuarine Maritime Sites), it

is less clear what the effects will be, because of the lack of comprehensive management strategies. For example, the Essex Estuaries Management Plan, published in 2004<sup>25</sup>, was published for consultation but was never finalised.

- 5.56 The North Essex Authorities Shared Strategic Part 1 for Local Plans, which forms part of the Braintree Publication Draft Local Plan, provides for 43,765 net additional homes in total for the three authorities, which is a significant amount of additional development for the area. Although the Braintree District contribution alone is not likely to give rise to likely significant effects on European sites, it is not possible to rule out likely significant effects in combination with the development provided for by the Shared Strategic Part 1 for Local Plans and possibly by local plans for other nearby local authorities. A combined HRA has been undertaken of the Shared Strategic Part 1 for Local Plans which concluded that, through the use of a strategic Recreational Avoidance and Mitigation Strategy for the Blackwater Estuary SPA/Ramsar, Colne Estuary SPA/Ramsar and Essex Estuaries SAC, it would be possible to avoid adverse effects on the integrity of these sites as a result of in-combination recreational disturbance.
- 5.57 In summary, recreational disturbance as a result of Section 2 of the Braintree Publication Draft Local Plan may result in likely significant effects on the Blackwater Estuary SPA/Ramsar, Colne Estuary SPA/Ramsar and Essex Estuaries SAC in-combination with the Shared Strategic Part 1 for Local Plans. This will require further consideration at the Appropriate Assessment stage to determine whether the Section 2 of the Braintree Publication Draft Local Plan will adversely affect the integrity of these sites either alone or in-combination.

---

<sup>25</sup> Essex Estuaries Initiative (March 2004) Draft Management Scheme for the Essex Estuaries European Marine Site

## 6 HRA Screening conclusions and next steps

### Conclusions

- 6.1 There are no European sites within Braintree District and therefore it is not possible for the Braintree District Draft Local Plan to result in direct likely significant effects on European sites. However, it is possible for the Draft Local Plan to give rise to likely significant effects on European sites beyond the District boundary.
- 6.2 The HRA Screening considered all European sites within 20km of the District boundary, plus European sites beyond this boundary where a pathway for likely significant effects could exist. As a result, 15 European sites were included in the HRA Screening.
- 6.3 The HRA Screening focused on Section 2 of the Braintree Publication Draft Local Plan (i.e. it did not include an HRA of the North Essex Authorities Shared Strategic Part 1 for Local Plans, which is common to Braintree District, Colchester Borough, and Tendring District).
- 6.4 The HRA Screening found that Section 2 of the Braintree District Draft Local Plan alone will not give rise to likely significant effects on any European sites.
- 6.5 However, the HRA Screening found that there is the potential for likely significant effects in-combination with the North Essex Authorities Shared Strategic Part 1 for Local Plans, with respect to recreational disturbance on the following sites:
  - Blackwater Estuary SPA and Ramsar.
  - Colne Estuary SPA and Ramsar.
  - Essex Estuaries SAC.
- 6.6 Recreational pressures on coastal European sites in Essex is a complex issue and is likely to require a strategic approach between Braintree and the other North Essex Authorities to ensure that adverse effects on integrity can be avoided. This has been recognised by the North Essex Authorities and it is anticipated that the most appropriate platform through which to address this impact is via the Appropriate Assessments of both the Part/Section 2 Local Plans, and HRA of the Strategic Part 1 for Local Plans which is assessing the strategic effect of the North Essex Authorities in-combination.
- 6.7 This approach is likely to require close liaison with Natural England to agree the most suitable forms of mitigation and avoidance. Initial discussions with Natural England have identified that production of a cross-authority Strategic Mitigation Strategy is likely to be required. This would set out a multi-faceted approach to mitigating recreational impacts based on accepted ZOIs, including i) provision of natural open space and green infrastructure at development sites, ii) increased provision of on-site visitor control methods such as provision of infrastructure, education and wardening, and iii) commitment to an appropriate monitoring and feedback loop to ensure a system is in place to trigger remedial measures if monitoring identifies or predicts any significant effects.
- 6.8 The approach being taken by Braintree District Council in addressing the key issues, particularly with regards to working alongside the other North Essex Authorities in relation to strategic growth, is advocated and deemed to be the most appropriate and pragmatic approach in ensuring that Section 2 of the Braintree Publication Draft Local Plan is sound. It is anticipated that, through the iterative process of the Appropriate Assessment stage, providing key recommendations and mitigation requirements are fully developed, are included within the Braintree Publication Draft Local Plan, and can be successfully implemented, it is likely to be possible to ensure no adverse effects on the above sites will occur as a result of recreational disturbance in-combination.

- 6.9 The Appropriate Assessment of the in-combination effect of recreational disturbance on the above sites is provided in the following Chapter.

## 7 Appropriate Assessment

7.1 The HRA Screening identified the potential for likely significant effects on the following European Sites as a result of increases in recreational activities in-combination with the North Essex Authorities Shared Strategic Part 1 for Local Plans:

- Colne Estuary SPA/Ramsar
- Essex Estuaries SAC
- Blackwater Estuary SPA/Ramsar

7.2 The assessment of whether Section 2 of the Braintree Publication Draft Local Plan will result in adverse effects on the integrity of each European site as a result in-combination effects is discussed below. Mitigation and avoidance requirements for recreational impacts have been combined to address impacts on all of the sites above owing to the similarity of impacts predicted and mitigation requirements.

### Colne Estuary SPA/Ramsar

7.3 The Colne Estuary SPA and Ramsar site is located along the southwest edge of Tendring District and the southern edge of Colchester Borough. The key threat relates primarily to disturbance of water birds from people and dogs in addition to water sports such as use of jet skis and motorboats.

7.4 Braintree District is located over 13km from the Colne SPA/Ramsar at the closest point and site allocations within the District are considerably further. Nevertheless, the visitor monitoring work undertaken has indicated a 24km ZOI for this site and therefore, whilst the contribution of additional recreational visits likely as a result of Section 2 of the Braintree Publication Draft Local Plan is unlikely to result in significant effects alone, there is potential for the additional recreational activities to combine with the Shared Strategic Part 1 for Local Plans and result in likely significant effects. This assessment will seek to determine whether this would result in adverse effects on site integrity and what mitigation measures may be required to avoid such effects.

7.5 Given the distance between Braintree District and the Colne Estuary SPA/Ramsar, the majority of visitors originating from the District are likely to arrive by car, and therefore the provision of alternative open space close to site allocations may represent a useful measure in helping to mitigate recreational impacts. This is discussed in more detail in the mitigation section below.

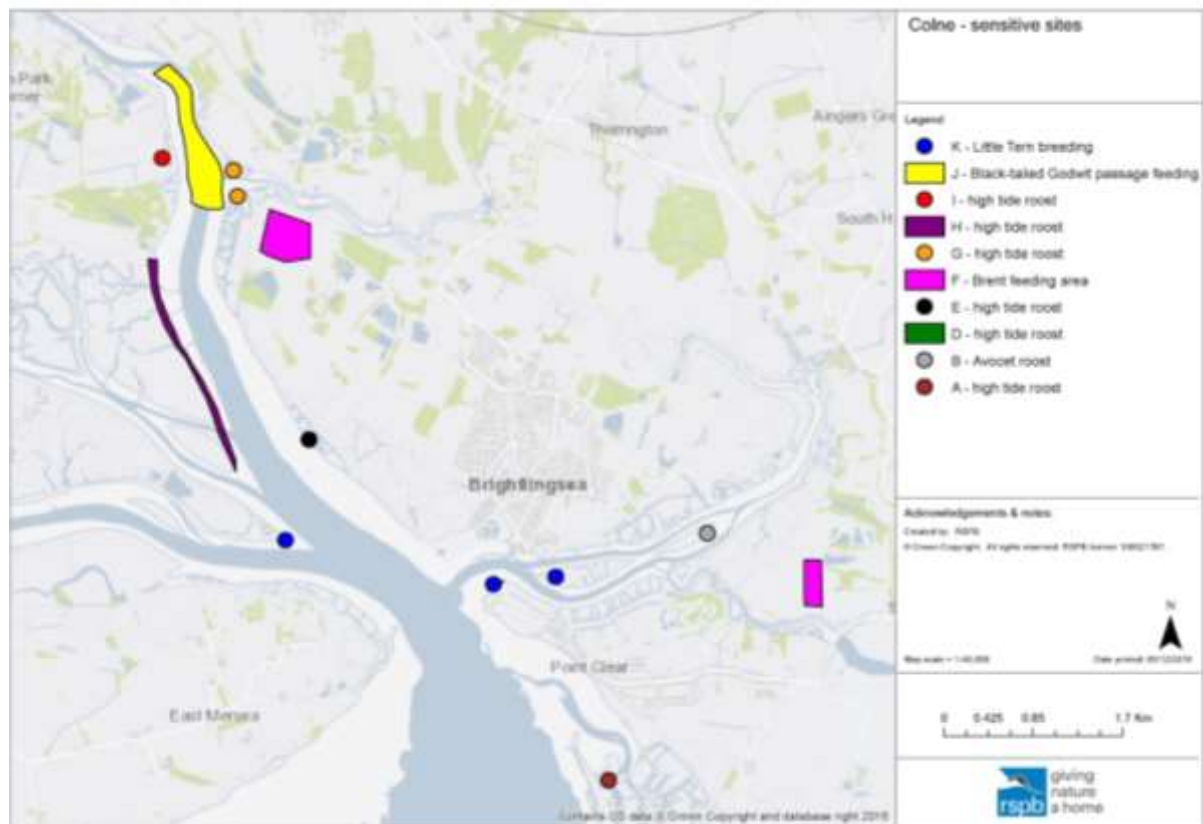
7.6 Visitor monitoring by Colchester Borough Council between 2010 and 2013 was undertaken at Cudmore Grove and Brightlingsea Marshes parts of the Colne Estuary SPA/Ramsar, located to the west and east of the estuary respectively. The information gained from these visitor surveys and their relevance in informing this assessment are discussed and interpreted below.

7.7 Many of the key areas of importance within the SPA/Ramsar are currently managed by Natural England and Essex Wildlife Trust to protect and benefit the qualifying bird species of the Colne Estuary, including taking measures to protect key areas from recreational disturbance such as through restricting access to permit holders only, erection of fencing and signage and provision of on-site wardening. Recreational impacts are more likely to occur where unmanaged recreational activity occurs in close proximity to sensitive areas of high importance for birds, such as high tide roosts, nesting sites (e.g. for little tern) and important feeding areas. Such locations tend to be where there is public access, for example via provision of car parks and where Public Rights of Way occur in close proximity to sensitive locations.

7.8 In order to broadly identify areas of the Colne Estuary SPA/Ramsar which are likely to be of increased risk of impacts associated with recreational disturbance, a review of existing management regimes and accessibility has been undertaken.

- 7.9 **Figure 7.1** below has been produced by the RSPB as part of the Appropriate Assessment work being completed by Colchester Borough Council for their Section 2 Local Plan. The map and identifies sensitive areas of the Colne Estuary in terms of nesting, roosting and feeding for qualifying bird species.

**Figure 7.1: Colne Estuary - Location of sensitive bird sites identified by RSPB**



- 7.10 The Colne Estuary National Nature Reserve (NNR) comprises much of the SPA in areas sensitive to disturbance. This site covers an area of 576 ha and includes component sites to the south west of St Osyth at 'Colne Point', west of Brightlingsea at 'Brightlingsea Marshes', and to the west of the Estuary at the 'East Mersea Marshes'. The NNR also incorporates the Colne Point Essex Wildlife Trust reserve, which is managed by both Essex Wildlife Trust and Natural England. The wider NNR is managed by Natural England.
- 7.11 The 'Colne Point' compartment of the NNR is wardened and only accessible to permit holders. Important nesting areas for little terns are fenced off, and informative signage is provided. In addition, public access in the vicinity of the site is restricted to the south east corner where a public footpath runs along the sea wall at the site boundary. Much of the salt marsh, mudflats and beach are physically separated from the public footpath via a series of creeks, including Ray Creek. As a result, it is likely that the existing infrastructure and management regime at Colne Point is likely to be resilient, at least to some extent, to the in-combination effects of population growth and associated recreational increases between the North Essex Authorities.
- 7.12 The East Mersea Flats area of the NNR is located on the western side of the Estuary, along the eastern edge of Mersea Island. Official parking is available at Cudmore Grove Country Park and at the junction of East Road and Ivy Lane. In addition, a ferry operates between the eastern edge of Mersea Island at Mersea Stone and St Osyth Point across the channel in Tendring. A public footpath runs along the entire northern edge of the SPA. The key findings of the visitor surveys completed at Cudmore Grove indicated that the majority of visitors travelled by car (194 of 230 groups interviewed) with a small proportion (30 of the 230) arriving on foot. The majority (134 of 230) lived in Colchester, with just 16 (7%) travelling from Braintree. 70% of visitors travelled 15 miles or less to visit the site and this has been an important factor in establishing the 24km ZOI for the site. The surveys revealed that Cudmore Grove is an important destination for dog

walking with 52% of visitors surveyed confirming this as the main reason for their visit and 64% of visitors visited all year round, including regular dog walkers.

- 7.13 A review of the Visitor Study and the BTO WeBS low tide count data for this area suggests that the northeast coastline where sandflats and mudflats meet a fringe of saltmarsh to the north of Mersea Stone is particularly important for SPA birds. Whilst, due to the visitor infrastructure at this location, there is likely to be an increased risk of recreational disturbance to birds, the visitor surveys indicated that the percentage of visitors originating from Braintree is low, probably as a result of the travel distance and the availability of similar coastal locations in closer proximity. Nevertheless, the increased contribution of visitors as a result of population increases associated with the Braintree Publication Draft Local Plan in-combination with the Part 2 Local Plan for Tendring and Section 2 Local Plan for Colchester, and the Shared Strategic Part 1 for Local Plans, may contribute in-combination to recreational pressures capable of resulting in adverse effects on site integrity.
- 7.14 A sensitive area for SPA birds has been identified by the RSPB along the western edge of the Colne channel stretching from Rat Island in the south to Fingringhoe Wick in the north. This area is located within Ministry of Defence land and is not publically accessible. As a result the potential for recreational disturbance at this location as a result of terrestrial activities is unlikely. Potential effects associated with water-based activities are discussed below.
- 7.15 The St Osyth Stone Point peninsular and shoreline of Brightlingsea Creek is another location where sensitive bird areas occur in close proximity to areas with high levels of existing visitor pressures. Public Rights of Way (PRoW) occur along both the north and south shore of Brightlingsea Creek and little tern nesting sites and avocet roosts occur within this area, albeit these important features are in locations which are restricted from public access (e.g. Cindery Island and another unnamed island immediately to the east of Cindery Island). Nevertheless, the accessibility provided by existing PRoW's are likely to result in relatively high levels of visitor pressure in areas of importance for SPA/Ramsar birds. As a result, this area is likely to be of increased susceptibility to recreational disturbance and increases in visitors associated with the in-combination effects of Section 2 of the Braintree Publication Draft Local Plan in-combination with the Section 2 Local Plan for Colchester and Part 2 Local Plan for Tendring, and the Shared Strategic Part 1 for Local Plans, has the potential to result in adverse effects on the Colne Estuary SPA/Ramsar.
- 7.16 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 Colne Estuary, the primary marina's and launch sites are located at Brightlingsea and Wivenhoe but impacts are likely to occur at locations where such activities occur in proximity to areas of sand and mudflats where birds are feeding, and high tide roosts associated with salt marshes.
- 7.17 The effect of water based recreation on SPA/Ramsar birds is difficult to predict and manage but studies from elsewhere in the UK<sup>26</sup> suggest that people will travel relatively far to partake in such activities, potentially including from within Braintree District. Given the specialist nature of these activities and that their prevalence is greater in the summer month when impacts to the wintering and passage bird features are unlikely, the increase in such activities as a result of the Braintree Publication Draft Local Plan in-combination with the Section 2 Local Plan for Colchester and the Part 2 Local Plan for Tendring, and the Shared Strategic Part 1 for Local Plans is considered likely to be small. Nevertheless, to enable a sufficient level of certainty that the policies contained in Section 2 of the Braintree Publication Draft Local Plan will not result in adverse effects on the Colne Estuary SPA/Ramsar in-combination, appropriate mitigation will be required. The most effective means of control is likely to be through the promotion of a code of conduct delivered primarily by marinas and leisure operators. This is considered in more specific detail in the mitigation section below.
- 7.18 In summary, **population growth and increased coastal visits as a result of Section 2 of the Braintree Publication Draft Local Plan is likely to contribute to increases in both land-based and water-based recreational pressures at the Colne Estuary SPA/Ramsar sites, which in-combination with the Colchester Section 2 and Tendring Part 2 Local**

---

<sup>26</sup> Cruickshanks, K., Liley, D., Fearnley, H., Stillman, R., Harvell, P., Hoskin, R. & Underhill-Day, J. (2010). Desk Based Study on Recreational Disturbance to birds on the Humber Estuary. Footprint Ecology / Humber Management Scheme

**Plans, and the Shared Strategic Part 1 for Local Plans, has the potential, in the absence of mitigation and avoidance measures, to adversely affect the integrity of the site.**

Mitigation will be required to ensure adverse effects can be avoided, and this is described in detailed below.

**Essex Estuaries SAC**

- 7.19 Essex Estuaries SAC is designated for the presence of coastal and inter-tidal habitats and the area of coverage in North Essex is largely shared with the Colne Estuary SPA and Ramsar. The habitats for which the SAC is designated are resilient to the disturbance impacts described above for the Colne Estuary SPA/Ramsar but this site is vulnerable to the physical damage which can be caused by trampling and erosion associated with terrestrial recreation and wave damage caused by water based recreation. 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 particularly sensitive to such factors. Areas of particular susceptibility to the effects of recreational activities are likely to be as described above for the Colne Estuary.
- 7.20 In summary, **population growth and increased coastal visits as a result of Section 2 of the Braintree Publication Draft Local Plan is likely to contribute to increases in both land-based and water-based recreational pressures at the Essex Estuaries SAC, which in-combination with the Colchester Section 2 and Tendring Part 2 Local Plans, and the Shared Strategic Part 1 for Local Plans, has the potential, in the absence of mitigation and avoidance measures, to adversely affect the integrity of the site.** As a result, adequate avoidance and mitigation measures will be required as detailed in the mitigation section below.

**Blackwater Estuary**

- 7.21 The Blackwater Estuary 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 SPA/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.
- 7.22 In general, the strategic housing allocations including the garden communities, which are likely to represent the main sources of additional recreational visits to the SPA/Ramsar, are located outside the 8km ZOI for this site. For example, development at Braintree itself including Great Notley, and at the West of Braintree new Garden Community (accounting for 6,700 of the proposed homes in Braintree in the plan period) will be over 15 km away from the Blackwater Estuary. The proposed development locations closest to the Blackwater Estuary are those at Witham and Feering (totalling 2,570 homes), and the new Garden Community at Marks Tey (2,500 homes in total in the plan period between Braintree District and Colchester Borough), although this site is located 9km from the Blackwater Estuary and is therefore located outside the ZOI. Nevertheless, the HRA of the Colchester Section 2 Local Plan identified the potential for adverse effects on site integrity as a result of the in-combination effects with Section 2 of the Braintree Publication Draft Local Plan, and likewise, this assessment has also identified the likelihood of such effects.
- 7.23 Visitor monitoring by Colchester Borough Council between 2010 and 2013 was undertaken at Old Hall Marshes and the Strood Channel parts of the SPA. The information gained from these visitor surveys and their relevance in informing this assessment are discussed and interpreted below.
- 7.24 In general, the number of visitors to these sites was very low. Old Hall Marshes is accessible by permit only and only 22 groups were surveyed over the three years, or which all visitors were bird watchers. At Strood Channel visitor numbers were also low with just 56 groups recorded during the three year survey period. The Strood Channel site was popular with local dog walkers with 31 of the 56 groups visiting for this purpose, and being close to home was the most popular reason given for visiting. Of the 56 groups, 39 (70%) lived in Mersea, whilst low numbers of groups had travelled from elsewhere including Colchester, Sudbury, Ingatestone, Braintree and Maldon. 40 of the 52 groups had travelled less than five miles and this is reflected in the establishment of an 8km ZOI which has been applied to this assessment.

- 7.25 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, which provide opportunities for residences of the North Essex Authorities to partake in activities with potential to disturb birds.
- 7.26 The effect of water based recreation on SPA/Ramsar birds is difficult to predict and manage but studies from elsewhere in the UK suggest that people will travel relatively far to partake in such activities and that they are more prevalent in the summer months. Given the specialist nature of these activities and that their prevalence is greater in the summer month when impacts to the wintering and passage bird features are unlikely, the increase in such activities as a result of Section 2 of the Braintree Publication Draft Local Plan is considered likely to be small. Nevertheless, to enable a sufficient level of certainty that the policies contained in the Local Plan do not result in adverse effects on the Blackwater Estuary SPA/Ramsar, appropriate mitigation will be required. The most effective means of control is likely to be through the promotion of a code of conduct targeted to marinas and leisure operators. This is considered in more specific detail in the mitigation section below.
- 7.27 Given the relatively low numbers of visitors recorded during the surveys, and the presence of significant areas which are not accessible to the public, such as Old Hall Marshes, the potential for increases in recreational visits as a result of Section 2 of the Braintree Publication Draft Local Plan to result in significant increases in recreational pressures at the Blackwater Estuary is considered low. Nevertheless, there is uncertainty as to whether the cumulative impact of increases in population associated with site allocations within the ZOI, for example including at Witham, West Mersea and Tiptree, could result in adverse effects on site integrity, and therefore mitigation will be required to provide a suitable level of certainty that impacts will be avoided, and these are discussed below.
- 7.28 In terms of in-combination effects, the ZOI for the Blackwater Estuary SPA/Ramsar also includes the North Essex Authority of Colchester Borough and therefore this assessment, considers the specific findings of the Colchester Section 2 Local Plan, to specifically consider in-combination effects from the outset. The HRAs of the Colchester Section 2 Local Plan concluded that they will need to be part of a RAMS for this SPA/Ramsar in partnership to ensure adverse effects are mitigated, and this is discussed in more detail in the mitigation section below.
- 7.29 In summary, **population growth and increased coastal visits as a result of Section 2 of the Braintree Publication Draft Local Plan is likely to contribute to increases in both land-based and water-based recreational pressures at the Colne Estuary SPA/Ramsar sites, which in-combination with the Colchester Section 2 and Tendring Part 2 Local Plans, and the Shared Strategic Part 1 for Local Plans, has the potential, in the absence of mitigation and avoidance measures, to adversely affect the integrity of the site.** Mitigation will be required to ensure adverse effects can be avoided, and this is described in detailed below.

### Consideration of the England Coastal Path

- 7.30 Consideration of the England Coastal Path project is pertinent in considering the accuracy of the key locations and impacts identified herein. The new National Trail, which is being led by Natural England, will give people right of access around our entire open coastline. This includes, where appropriate, any land, other than the trail itself, which forms part of the coastal margin and which has public rights of access along the way. Natural England expects to complete work on the England Coast Path in 2020 and it is understood that sections of the trail within Essex are underway and are expected to be completed by 2020. At present, the exact alignment of the path in Essex is not known, but it is sensible to assume that it will further increase accessibility to sensitive areas and therefore the interpretation of key areas within this assessment may be subject to change in the near future.
- 7.31 The specific impacts associated with the England Coastal Path will need to be carefully considered by Natural England and appropriate mitigation and avoidance measures will be required to ensure that the project does not adversely affect European Sites. It is likely that the mitigation required in respect of recreational impacts, as described below, will need to carefully align with those proposed by Natural England, and ideally a coordinated approach to mitigation is likely to be the

most effective approach to avoiding impacts on European sites. As a result, the Recreation and Avoidance Mitigation Strategy outlined below will require close consultation and agreement with Natural England.

### **Mitigation – Recreation Avoidance and Mitigation Strategy**

- 7.32 This assessment has identified that recreational impacts to the Colne Estuary SPA/Ramsar, Essex Estuaries SAC, and Blackwater Estuary SPA/Ramsar would, in the absence of additional mitigation and avoidance measures, be expected to result in adverse effects on the integrity of these sites as a result of in-combination effects with the Colchester Section 2 and Tendring Part 2 Local Plans, and the Shared Strategic Part 1 for Local Plans. As a result, additional mitigation and avoidance measures in the form of a Recreation and Avoidance Mitigation Strategy (RAMS) will need to be prepared and agreed with Natural England prior to adoption of the plan, to ensure adverse effects on integrity (AEOI) are likely to be avoided. A commitment to the successful delivery and implementation of the RAMS will need to be included within the Local Plan Section 2 to ensure that the plan is sound.
- 7.33 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 together. Albeit, where site-specific measures are required, this is made clear below.
- 7.34 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.
- 7.35 Relevant examples include; the Recreation Avoidance and Mitigation Strategy 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 ZOI around the Thames Basin Heaths SPA.
- 7.36 A key component of the above examples is the adoption of a strategic approach to mitigation which involves more than one Authority. The sources of recreational impacts on European sites, typically originate from more than one Authority, as is the case with this assessment. 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.
- 7.37 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, and 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 primarily 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.
- 7.38 In light of the above, and through close liaison with Natural England during the preparation of their Part/Section 2 Local Plans and their shared Strategic Plan Part 1, Braintree District Council, Colchester Borough Council and Tendring District Council (The North Essex Authorities), have adopted a joint strategic approach to ensuring impacts associated with recreation will be adequately addressed and mitigated. Through a series of meetings and workshops, the North Essex Authorities have agreed to prepare and implement RAMS for the relevant European sites. Authorities will only be part of a specific RAMS where they are proposing dwellings within the zones of influence of a given site. For example, Braintree will not need to be included in the RAMS proposed for the Stour and Orwell Estuaries because they will not contribute to significant effects to this site.

- 7.39 A key aspect of the RAMS will be the need for 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 AEOI.
- 7.40 Key principles upon which the RAMS should be based include: the use of appropriate funding mechanisms; consideration of the Suffolk RAMS; 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. It is expected that these principles will be further developed by the North Essex Authorities in close consultation and agreement with Natural England to ensure that a suitable draft RAMS is in place prior to adoption of the Section 2 of the Braintree Publication Draft Local Plan.

#### *Mechanisms of Funding and Delivery*

- 7.41 The Zones of Influence (ZOI's) established as part of the Screening stage have been used for identifying housing allocations considered likely to contribute significant effects to increases in recreation at a given European site, and therefore potentially resulting in AEOI. Only those housing allocations falling within the ZOI's for Essex Estuaries SAC, Colne Estuary SPA/Ramsar, and Blackwater Estuary SPA/Ramsar will need to be included in the RAMS.
- 7.42 At a meeting between the North Essex Authorities and Natural England (8<sup>th</sup> Feb 2017), Natural England recommended that the preference for delivery of a RAMS was via a Supplementary Planning Document (SPD). Examples of mitigation strategies being provided in the form of an SPD includes 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.
- 7.43 The TBH SPD's have been adopted by eleven local authorities which incorporate the SPA's ZOI 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 and it is recommended that RAMS produced by Braintree District Council in partnership with other relevant North Essex Authorities should adopt a similar approach to delivery. 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.
- 7.44 As per the TBH SPD, it is recommended that a RAMS's for the above European sites include 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. None of the European Sites listed above are located within Braintree and therefore Braintree does not have the ability to implement direct management at, or adjacent to, the European Sites. Nevertheless, the above approach, which would see Braintree make the necessary contributions towards a pooled strategic allocation, would enable such measures to be put in place by site managers such as Natural England, RSPB and the Wildlife Trust and the Authorities of Colchester Borough and Tendring District, within which parts of the above European sites are located.
- 7.45 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 lifetime of the plan, a draft will need to be prepared and approved by Natural England prior to adoption of the Section 2 of the Braintree Publication Draft Local Plan.

#### *Provision of Updated Visitor Monitoring*

- 7.46 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 Plan being adopted, and is repeated no less frequent 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 specifications committed to in the RAMS

continue to be based upon up to date information and in agreement with Natural England. It will also be important to ensure that up to date bird data is also 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 and 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 event that suitably up to date bird survey data is not available during each five year period, albeit unlikely, they will undertake equivalent survey work to inform the RAMS.

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

- 7.47 During a meeting on 8<sup>th</sup> Feb 2017 between Braintree District Council, the other North Essex Authorities of Colchester Borough and Tendring District, and Natural England on it was broadly agreed by all parties that 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.
- 7.48 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 Section 2 Braintree Publication Draft Local Plan is considered likely to provide an effective contribution in mitigating significant effects associated with recreation.
- 7.49 To maximise the effectiveness of its role in mitigation 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. This primarily includes walkers and dog walkers.
- 7.50 Policies LPP 53 Provision for Open Space and Recreation and LPP 67 Natural Environment and Green Infrastructure provide commitments for the delivery of green space and GI which has the potential to contribute towards mitigation of recreational impacts on the European sites.
- 7.51 Policy LPP 53 specifies that where the Council has identified a surplus in one type of open space or sports and recreational facility but a deficit in another type, planning conditions or obligations may be used to secure part of the development site for the type of open space or sports and recreational facility that is in deficit. In addition, the policy specifies that the Council will consider applications with the intention of protecting and enhancing those parts of the Rights of Way network that may benefit open space and access to the wider countryside, and those with the intention of mitigating the impact of any development on biodiversity and nature conservation. The Publication Draft Local Plan recognises that Open Space may also be collocated with other types of landscaping and natural features or SUDs.
- 7.52 The Publication Draft Local Plan specifies that the Council will establish a Sports and Open Space delivery body involving key partners such as town and parish council's, local sports groups, Sport England, developers and Essex County Council to identify opportunities to improve and provide facilities over the life of the Plan. It is recommended that such a delivery body consider will need to consider the conclusions and prescriptions of the RAMS in allocating, designing and implementing such provision.
- 7.53 The Publication Local Plan does not quantify minimum standards which would be provided per dwelling but does set out what types and when provision of open space will be required. In summary, developments of 20 or more dwellings will be required to provide 'Amenity/Natural Greenspace' and those of 250 or more dwellings will be required to provide Parks and Sports and Recreation Grounds.
- 7.54 Policy LPP 67 specifies that development proposals must take available measures to ensure the protection, and where possible, the enhancement of the natural environment, habitats, biodiversity and geodiversity of the District. This will include, where appropriate, protection from pollution. It states that the Council will expect all development proposals, where appropriate, to contribute towards the delivery of new green infrastructure which develops and enhances a network of multi-functional spaces and natural features throughout the District. This will be proportionate to the scale of the proposed development and the rural or urban context. The

Council will support and encourage development which contributes to the District's existing green infrastructure and where possible, enhances and protects networks and adds to their functions where appropriate. It will secure additional provision where deficiencies have been identified, and proposals which undermine these principles will not be acceptable.

- 7.55 Despite the commitment to provision of 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 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.

- 7.56 It is recommended that the wording of Section 2 of the Braintree Publication Draft Local Plan policies LPP 53 and LPP 67 is modified to include specific reference to the role of open space and GI in providing alternatives to European sites, and that such sites should be designed and managed appropriately to maximise their potential effectiveness in this role. This should include a commitment for any Sports and Open Space delivery body to consider the conclusions and prescriptions of the RAMS in allocating, designing and implementing such provision.**

*Watercraft disturbance - Code of Conduct*

- 7.57 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. The nesting sites of little terns are located on shallow sandy areas above the high tide mark and are therefore not especially vulnerable to such activities. Nevertheless, water based recreation does occur during the winter and passage months, and where such activities occur in close proximity to bird areas, there is a high probability of disturbance to birds while feeding or roosting in otherwise undisturbed locations.
- 7.58 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, marina's, sailing clubs and holiday parks, in addition to quaysides, jetties and other launch sites within the RAMS operational area. Such an approach could be undertaken via promotional leaflets, posters and signage.

*On site management and monitoring*

- 7.59 The European sites are largely managed by Natural England, Essex Wildlife Trust and RSPB, and therefore the RAMS will need to be developed in close consultation and agreement with these key stakeholders to ensure that the measures proposed will be targeted to resolving specific issues and recreational threats and maximum the benefit of the measures proposed in mitigating recreational impacts. It is recommended that this is achieved via a series of workshops for the specific European sites which includes appropriate stakeholder representatives such as site managers and area advisers.
- 7.60 Detailed and site specific management measures will be provided in the RAMS and would be specifically informed via the workshops and consultation described above. It is likely that key aspects of any RAMS will include, but is 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).

7.61 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 Council that in the event that suitably up to date bird survey data is not available during each five year period, albeit unlikely, they will undertake equivalent survey work to inform the RAMS.

### Conclusions

7.62 In summary, the implementation of recreational strategies is now a widely advocated means of mitigating impacts associated with recreation at European sites. In light of this, and through extensive consultation with Natural England, there is a high degree of confidence in the appropriateness and likely effectiveness of such a measure. The production and implementation of RAMS which includes a commitment to regular monitoring, and which has the flexibility to adapt to findings and pre-empt impacts is considered likely to provide an effective form of mitigation and avoidance.

7.63 As a result, **providing that a RAMS is prepared by Braintree District Council in partnership with Colchester Borough Council and Tendring District Council in accordance with the principles outlined above, is developed in close consultation with Natural England, and is ready for implementation prior to adoption, the Section 2 of the Braintree Publication Draft Local Plan will not result in adverse effects on the integrity of the Essex Estuaries SAC, Colne Estuary SPA/Ramsar, and Blackwater Estuary SPA/Ramsar either alone, or in-combination with other plans and projects as a result of recreational impacts.**

## 8 Conclusion

- 8.1 At the Screening stage, potential Likely Significant Effects (LSEs) were identified on the Colne Estuary SPA/Ramsar, Essex Estuaries SAC, and Blackwater Estuary SPA/Ramsar as a result of the effect of recreational impacts in-combination with the Tendring District Part 2 Local Plan, Colchester Borough Section 2 Local Plan, and the Shared Strategic Part 1 for Local Plans which includes the North Essex Authorities of Braintree, Colchester and Tendring.
- 8.2 The Appropriate Assessment stage identified whether the above LSE would, in light of mitigation and avoidance measures, result in adverse effects on the integrity of the European sites as a result of the in-combination effects identified. Where necessary, suitable mitigation measures and modified policy wording is provided which would enable a sufficient level of certainty to conclude no Adverse Effect on Integrity (AEIOI).
- 8.3 The effect of recreational disturbance on European sites is an increasingly prevalent concern across the UK. In response to emerging research and evidence, the consensus between Local Authorities, Natural England, and other key stakeholders such as the RSPB and the Wildlife Trusts, is that the most appropriate method of mitigation and avoidance is via the implementation of Recreation Avoidance and Mitigation Strategies (RAMS) which provide a multi-faceted approach and are adaptive and responsive to regular monitoring.
- 8.4 In light of this, the key recommendation made in this HRA report is for a RAMS to be prepared jointly by the North Essex Authorities to mitigate the effect of recreational pressures on the above European Sites.
- 8.5 Key aspects of the RAMS will include provision of alternative open space and green infrastructure, on-site management, and an adaptable approach which responds to regular monitoring of both people and birds. As a result of this, and via detailed and ongoing discussions with Natural England and the North Essex Authorities who are actively engaging in a strategic, proactive and coordinated approach, there is a high degree of certainty that the impacts identified in this assessment can be avoided.
- 8.6 The approach being taken by Braintree District Council in addressing the key issues, particularly with regards to working alongside the other North Essex Authorities in relation to strategic growth, is advocated and deemed to be the most appropriate and pragmatic approach in ensuring that Section 2 of the Braintree Publication Draft Local Plan is sound.
- 8.7 **In conclusion, providing that key recommendations and mitigation requirements detailed herein are fully developed and included within Section 2 of the Braintree Publication Draft Local Plan, including a RAMS which is developed in close consultation with Natural England and can be successfully implemented, there will be no adverse effect on the Colne Estuary SPA/Ramsar, Essex Estuaries SAC, and Blackwater Estuary SPA/Ramsar, either alone or in-combination.**

**Appendix 1**  
Characteristics of European Sites

This appendix contains information about the European sites scoped into the HRA. Information about each site's area, the site descriptions, qualifying features and pressures and threats are drawn from Natural England's Site Improvement Plans (SIPs)<sup>27</sup> and the Standard Data Forms or Ramsar Information Sheets available from the JNCC website<sup>28</sup>. Site conservation objectives are drawn from Natural England's website and are only available for SACs and SPAs.<sup>29</sup>

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
<b>Abberton Reservoir</b> 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.				
Abberton Reservoir SPA	726.2	<p>Supports the following internationally important waterbird assemblage:</p> <ul style="list-style-type: none"> <li>• <i>Podiceps cristatus</i>; Great crested grebe (Non-breeding)</li> <li>• <i>Phalacrocorax carbo</i>; Great cormorant (Breeding)</li> <li>• <i>Cygnus olor</i>; Mute swan (Non-breeding)</li> <li>• <i>Anas penelope</i>; Eurasian wigeon (Non-breeding)</li> <li>• <i>Anas strepera</i>; Gadwall (Non-breeding) <i>Anas crecca</i>; Eurasian teal (Non-breeding)</li> <li>• <i>Anas clypeata</i>; Northern shoveler (Non-breeding)</li> <li>• <i>Aythya ferina</i>; Common pochard (Non-breeding)</li> <li>• <i>Aythya fuligula</i>; Tufted duck (Non-breeding)</li> <li>• <i>Bucephala clangula</i>; Common goldeneye (Non-breeding)</li> <li>• <i>Fulica atra</i>; Common coot (Non-breeding)</li> <li>• <i>Pluvialis apricaria</i>; European golden plover (Non-breeding)</li> </ul>	<p>With regard to the individual species and/or assemblage of species for which the site has been classified:</p> <ul style="list-style-type: none"> <li>• Avoid the deterioration of the habitats of the qualifying features, and the significant disturbance of the qualifying features, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving the aims of the Birds Directive.</li> </ul> <p>Subject to natural change, to maintain or restore:</p> <ul style="list-style-type: none"> <li>• The extent and distribution of the habitats of the qualifying features;</li> <li>• The structure and function of the habitats of the qualifying features;</li> <li>• The supporting processes on which the habitats of the qualifying features rely;</li> <li>• The populations of the qualifying features;</li> <li>• The distribution of the qualifying</li> </ul>	<p><b>Siltation</b> – high sediment load in reservoir inflow due to agricultural practices within catchment.</p> <p><b>Public access / disturbance</b> – designated waterbirds are vulnerable to human disturbance but well controlled by Essex &amp; Suffolk Water; occasional trespassing and disturbance by low flying aircraft.</p> <p><b>Planning permission: general</b> – potential future threat to designated waterbirds if farmland providing supporting habitat close to the SPA were lost to development; requires further study.</p> <p><b>Changes in species distributions</b> – unexplained decline in designated population of cormorant.</p> <p><b>Bird strike</b> – death of designated mute swans and possibly other species from collision with overhead powerlines near reservoir.</p> <p><b>Water pollution</b> – Water stored in the reservoir is high in nutrients (eutrophic) as it comes from intensively farmed catchment areas. Resulting algal blooms may include toxic blue-green algae that can kill wildfowl, though no significant mortality has been recorded.</p> <p><b>Air Pollution: risk of atmospheric nitrogen deposition</b> – The site is identified as at risk from air pollution as Nitrogen deposition levels exceed the site-</p>

<sup>27</sup> Site Improvement Plans: East of England, Natural England, <http://publications.naturalengland.org.uk/category/4873023563759616>

<sup>28</sup> JNCC Data Forms <http://jncc.defra.gov.uk/default.aspx?page=4>

<sup>29</sup> European Site Conservation Objectives, Natural England, <http://www.naturalengland.org.uk/ourwork/conservation/designations/sac/conservationobjectives.aspx>

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
			features within the site.	<p>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.</p> <p>Historically, increased water from the reservoir led to low water levels although no decrease in wildfowl was attributed to this. 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.</p> <p>The Water Company has a consultative committee which addresses conservation issues at all its sites, and the Abberton Reserve Committee (involving Essex Wildlife Trust and EN) addresses local issues.</p>
Abberton Reservoir Ramsar site	726.2	<p>Supports 23787 waterfowl (5 year peak mean 1998/99-2002/2003) including the following internationally important waterbird assemblage:</p> <ul style="list-style-type: none"> <li>• Gadwall , <i>Anas strepera strepera</i></li> <li>• Northern shoveler , <i>Anas clypeata</i></li> <li>• Eurasian wigeon , <i>Anas Penelope</i></li> <li>• Mute swan , <i>Cygnus olor</i></li> <li>• Common pochard , <i>Aythya farina</i></li> <li>• Great cormorant , <i>Phalacrocorax carbo carbo</i>,</li> <li>• Eurasian teal , <i>Anas crecca</i>,</li> <li>• Tufted duck , <i>Aythya fuligula</i></li> <li>• Common coot , <i>Fulica atra atra</i></li> <li>• Pied avocet , <i>Recurvirostra avosetta</i>,</li> <li>• Ruff , <i>Philomachus pugnax</i>,</li> <li>• Black-tailed godwit , <i>Limosa limosa islandica</i>,</li> <li>• Spotted redshank , <i>Tringa</i></li> </ul>	None available.	Similar to Abberton Reservoir SPA (above).

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
		<i>erythropus</i> , <ul style="list-style-type: none"> <li>Common greenshank , <i>Tringa nebularia</i>,</li> <li>Common goldeneye , <i>Bucephala clangula</i></li> </ul>		
The Blackwater Estuary is a large estuary between the Dengie peninsula and Mersea Island on the Essex coast. It stretches from immediately adjacent to Maldon and about 8 km south of Colchester.				
Blackwater Estuary (Mid-Essex Coast Phase 4) SPA	4395.15	<p>Qualifying Features (Waterbird assemblage):</p> <ul style="list-style-type: none"> <li><i>Branta bernicla bernicla</i>; Dark-bellied brent goose (Non-breeding)</li> <li><i>Aythya ferina</i>; Common pochard (Breeding)</li> <li><i>Circus cyaneus</i>; Hen harrier (Non-breeding)</li> <li><i>Charadrius hiaticula</i>; Ringed plover (Breeding)</li> <li><i>Pluvialis squatarola</i>; Grey plover (Non-breeding)</li> <li><i>Calidris alpina alpina</i>; Dunlin (Non-breeding)</li> <li><i>Limosa limosa islandica</i>; Black-tailed godwit (Non-breeding)</li> <li><i>Sterna albifrons</i>; Little tern (Breeding)</li> </ul> <p>Additional Qualifying Features Identified by the 2001 UK SPA Review:</p> <ul style="list-style-type: none"> <li><i>Tadorna tadorna</i>; Common shelduck (Non-breeding)</li> <li><i>Recurvirostra avosetta</i>; Pied avocet (Non-breeding)</li> <li><i>Charadrius hiaticula</i>; Ringed plover (Non-breeding)</li> <li><i>Pluvialis apricaria</i>; European golden plover (Non-breeding)</li> <li><i>Philomachus pugnax</i>; Ruff (Non-</li> </ul>	<p>With regard to the individual species and/or assemblage of species for which the site has been classified:</p> <ul style="list-style-type: none"> <li>Avoid the deterioration of the habitats of the qualifying features, and the significant disturbance of the qualifying features, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving the aims of the Birds Directive.</li> </ul> <p>Subject to natural change, to maintain or restore:</p> <ul style="list-style-type: none"> <li>The extent and distribution of the habitats of the qualifying features;</li> <li>The structure and function of the habitats of the qualifying features;</li> <li>The supporting processes on which the habitats of the qualifying features rely;</li> <li>The populations of the qualifying features;</li> <li>The distribution of the qualifying features within the site.</li> </ul>	<p><b>Coastal squeeze</b> - 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 area of the Mid Essex Coast SPAs 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.</p> <p><b>Public access /disturbance</b> - 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.</p> <p><b>Planning permission: general</b> - 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.</p> <p><b>Changes in species distributions</b> - Declines have occurred in the numbers of some of the waterbird species using the Essex Estuaries SIP area but these</p>

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
		<ul style="list-style-type: none"> <li>breeding)</li> <li><i>Tringa totanus</i>; Common redshank (Non-breeding)</li> </ul>		<p>may be due to changes in their distributions or population levels at a national or continental scale, possibly linked to climate change.</p> <p><b>Invasive species</b> - An increase in Pacific oyster <i>Crassostrea gigas</i> 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. Other non-native invasive species such as the American whelk tingle <i>Urosalpinx cinerea</i> and Slipper limpet <i>Crepidula fornicata</i> are known to occupy subtidal muddy habitats, potentially impacting native communities through competition for resources and predation. Invasive common cord grass may adversely affect plant species for which the Essex Estuaries SAC is designated, as well as other species and habitats, including feeding and roosting areas of SPA bird species.</p> <p><b>Fishing</b> - Recreational bait digging may impact waterbirds e.g. by reducing prey availability, or damaging the intertidal mudflats and sandflats and associated communities. The extent of the activity and potential impacts on site features are not currently well understood. Certain forms of commercial fishing, e.g. bottom towed fishing gear, can be very damaging to inshore marine habitats and the bird species dependent on the communities they support.</p> <p><b>Air Pollution: risk of atmospheric nitrogen deposition</b> - 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.</p>

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
Blackwater Estuary (Mid-Essex Coast Phase 4) Ramsar site	4395.15	<p>Represents 70% of the saltmarsh habitat in Essex and 7% of the total area of saltmarsh in Britain. Invertebrate fauna includes at least 16 British Red Data Book species:</p> <ul style="list-style-type: none"> <li>• water beetle <i>Paracymus aeneus</i>;</li> <li>• damselfly <i>Lestes dryas</i>,</li> <li>• flies <i>Aedes flavescens</i>, <i>Erioptera bivittata</i>, <i>Hybomitra expollicata</i> ;</li> <li>• spiders <i>Heliophanus auratus</i> and <i>Trichopterna cito</i>;</li> <li>• beetles <i>Baris scolopacea</i>, <i>Philonthus punctus</i>, <i>Graptodytes bilineatus</i> and <i>Malachius vulneratus</i>,</li> <li>• flies <i>Campsicemus magius</i>, <i>Myopites eximia</i>,</li> <li>• moths <i>Idaea ochrata</i> and <i>Malacosoma castrensis</i>;</li> <li>• spider <i>Euophrys</i>.</li> </ul> <p>Supports a full and representative sequences of saltmarsh plant communities covering the range of variation in Britain.</p> <p>Supports the following internationally important wildfowl assemblage:</p> <ul style="list-style-type: none"> <li>• Dark-bellied brent goose, <i>Branta bernicla bernicla</i>, Grey plover , <i>Pluvialis squatarola</i>,</li> <li>• Dunlin , <i>Calidris alpina alpina</i>,</li> <li>• Black-tailed godwit , <i>Limosa limosa islandica</i>,</li> <li>• European golden plover , <i>Pluvialis apricaria</i></li> <li>• <i>apricaria</i></li> <li>• Common redshank , <i>Tringa totanus tetanus</i></li> </ul>	None available.	Similar to Blackwater Estuary SPA (above).

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
<p>The Colne Estuary is located on the coast of Essex in eastern England. It is a comparatively short and branching estuary, with five tidal arms that flow into the main channel of the River Colne. The estuary has a narrow intertidal zone predominantly composed of flats of fine silt with mud-flat communities typical of south-eastern English estuaries. The estuary is of importance for a range of wintering wildfowl and waders, in addition to breeding Little Tern <i>Sterna albifrons</i> which nest on shell, sand and shingle spits. There is a wide variety of coastal habitats which include mud-flat, saltmarsh, grazing marsh, sand and shingle spits, disused gravel pits and reedbeds which provide feeding and roosting opportunities for the large numbers of waterbirds that use the site.</p> <p>The Colne Estuary is an integral component of the phased Mid-Essex Coast SPA</p>				
Colne Estuary (Mid-Essex Coast Phase 2) SPA	2701.43	<p>Annex I populations of the following species:</p> <p>During the breeding season -</p> <ul style="list-style-type: none"> <li>• Little Tern <i>Sterna albifrons</i></li> </ul> <p>Over winter -</p> <ul style="list-style-type: none"> <li>• Avocet <i>Recurvirostra avosetta</i></li> <li>• Golden Plover <i>Pluvialis apricaria</i></li> <li>• Hen Harrier <i>Circus cyaneus</i></li> </ul> <p>This site also qualifies under <b>Article 4.2</b> of the Directive (79/409/EEC) by supporting populations of European importance of the following migratory species:</p> <p>Over winter -</p> <ul style="list-style-type: none"> <li>• Dark-bellied Brent Goose <i>Branta bernicla bernicla</i></li> <li>• Redshank <i>Tringa totanus</i></li> </ul> <p>The area qualifies under Article 4.2 of the Directive (79/409/EEC) by regularly supporting at least 20,000 waterfowl</p>	<p>Avoid the deterioration of the habitats of the qualifying features, and the significant disturbance of the qualifying features, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving the aims of the Birds Directive.</p> <p>Subject to natural change, to maintain or restore:</p> <ul style="list-style-type: none"> <li>• The extent and distribution of the habitats of the qualifying features;</li> <li>• The structure and function of the habitats of the qualifying features;</li> <li>• The supporting processes on which the habitats of the qualifying features rely;</li> <li>• The populations of the qualifying features;</li> <li>• The distribution of the qualifying features within the site.</li> </ul>	Similar to Blackwater Estuary SPA (above).
Colne Estuary (Mid-Essex Coast Phase 2) Ramsar site	2701.43	<p>Ramsar criterion 1</p> <p>The site is important due to the extent and diversity of saltmarsh present.</p>	None available.	Similar to Blackwater Estuary SPA (above).

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
		<p>Ramsar criterion 2</p> <p>The site supports 12 species of nationally scarce plants and at least 38 British Red Data Book invertebrate species.</p> <p>Ramsar criterion 3</p> <p>This site supports a full and representative sequences of saltmarsh plant communities covering the range of variation in Britain.</p> <p>Ramsar criterion 5</p> <p>Assemblages of international importance:</p> <p>Species with peak counts in winter:</p> <p>32041 waterfowl (5 year peak mean 1998/99-2002/2003)</p> <p>Ramsar criterion 6</p> <p>Species/populations occurring at levels of international importance. Qualifying Species/populations (as identified at designation):</p> <p>Species with peak counts in winter:</p> <ul style="list-style-type: none"> <li>• Dark-bellied brent goose, <i>Branta bernicla bernicla</i>,</li> <li>• Common redshank , <i>Tringa totanus totanus</i></li> </ul> <p>Species/populations identified subsequent to designation for possible future consideration under criterion 6.</p> <p>Species with peak counts in winter:</p> <ul style="list-style-type: none"> <li>• Black-tailed godwit , <i>Limosa</i></li> </ul>		

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
		<i>limosa islandica</i>		
The River Crouch and the River Roach are between the Dengie Peninsula and Southend-on-Sea in Essex, south-east England				
Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA	1735.58	<p>Site regularly supports over winter:</p> <ul style="list-style-type: none"> <li>Dark-bellied brent goose, <i>Branta bernicla bernicla</i></li> <li>Hen harrier, <i>Circus cyaneus</i></li> </ul>	<p>With regard to the individual species and/or assemblage of species for which the site has been classified:</p> <ul style="list-style-type: none"> <li>Avoid the deterioration of the habitats of the qualifying features, and the significant disturbance of the qualifying features, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving the aims of the Birds Directive.</li> </ul> <p>Subject to natural change, to maintain or restore:</p> <ul style="list-style-type: none"> <li>The extent and distribution of the habitats of the qualifying features;</li> <li>The structure and function of the habitats of the qualifying features;</li> <li>The supporting processes on which the habitats of the qualifying features rely;</li> <li>The populations of the qualifying features;</li> <li>The distribution of the qualifying features within the site.</li> </ul>	Similar to Blackwater Estuary SPA (above).
Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) Ramsar site	1735.58	<p>Supports an appreciable assemblage of rare, vulnerable or endangered including 13 nationally scarce plant species:</p> <ul style="list-style-type: none"> <li>slender hare's ear <i>Bupleurum tenuissimum</i>,</li> <li>divided sedge <i>Carex divisa</i>,</li> <li>sea barley <i>Hordeum marinum</i>,</li> <li>golden-samphire <i>Inula crithmoides</i>,</li> </ul>	None available.	Similar to Blackwater Estuary SPA (above).

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
		<ul style="list-style-type: none"> <li>laxflowered sea-lavender <i>Limonium humile</i>,</li> <li>curved hard-grass <i>Parapholis incurva</i>,</li> <li>Borrer's saltmarsh grass <i>Puccinellia fasciculata</i>,</li> <li>stiff saltmarsh grass <i>Puccinellia rupestris</i>,</li> <li>spiral tasselweed <i>Ruppia cirrhosa</i>,</li> <li>one-flowered glasswort <i>Salicornia pusilla</i>,</li> <li>small cord-grass <i>Spartina maritima</i>,</li> <li>shrubby seablite <i>Suaeda vera</i></li> <li>sea clover <i>Trifolium squamosum</i>.</li> </ul> <p>Several important invertebrate species also present including:</p> <ul style="list-style-type: none"> <li>scarce emerald damselfly <i>Lestes dryas</i>,</li> <li>the shorefly <i>Parydroptera discomyzina</i>,</li> <li>the rare soldier fly <i>Stratiomys singularior</i>,</li> <li>the large horsefly <i>Hybomitra expollicata</i>,</li> <li>beetles <i>Graptodytes bilineatus</i>, <i>Malachius vulneratus</i>,</li> <li>the ground lackey moth <i>Malacosoma castrensis</i> and <i>Eucosoma catoprana</i>.</li> </ul> <p>Also supports the following internationally important waterbird assemblage:</p> <ul style="list-style-type: none"> <li>Dark-bellied brent goose, <i>Branta bernicla bernicla</i>.</li> </ul>		

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
Dengie is located on the coast of Essex in eastern England. It is a large and remote area of tidal mud-flats and saltmarshes at the eastern end of the Dengie peninsula, between the adjacent Blackwater and Crouch Estuaries. The saltmarsh is the largest continuous example of its type in Essex. Foreshore, saltmarsh and beaches support an outstanding assemblage of rare coastal flora. It is of importance for wintering populations of Hen Harrier <i>Circus cyaneus</i> , wildfowl and waders. The formation of cockleshell spits and beaches is of geomorphological interest.				
Dengie (Mid-Essex Coast Phase 1) SPA	3127.23	<p>This site qualifies under Article 4.1 of the Directive (79/409/EEC) by supporting populations of European importance of the following species listed on Annex I of the Directive:</p> <p>Over winter -</p> <ul style="list-style-type: none"> <li>Bar-tailed Godwit <i>Limosa lapponica</i></li> <li>Hen Harrier <i>Circus cyaneus</i></li> </ul> <p>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:</p> <p>Over winter -</p> <ul style="list-style-type: none"> <li>Grey Plover <i>Pluvialis squatarola</i></li> <li>Knot <i>Calidris canutus</i></li> </ul> <p>Assemblage qualification: A wetland of international importance.</p> <p>The area qualifies under Article 4.2 of the Directive (79/409/EEC) by regularly supporting at least 20,000 waterfowl.</p> <p>Over winter, the area regularly supports 31,452 individual waterfowl (5 year peak mean 1991/2 - 1995/6) including:</p>	<p>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:</p> <ul style="list-style-type: none"> <li>The extent and distribution of the habitats of the qualifying features.</li> <li>The structure and function of the habitats of the qualifying features.</li> <li>The supporting processes on which the habitats of the qualifying features rely.</li> <li>The population of each of the qualifying features.</li> <li>The distribution of the qualifying features within the site.</li> </ul>	Similar to Blackwater Estuary SPA (above).

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
		<ul style="list-style-type: none"> <li>Black-tailed Godwit <i>Limosa limosa islandica</i></li> <li>Dunlin <i>Calidris alpina alpina</i></li> <li>Lapwing <i>Vanellus vanellus</i>, Oystercatcher <i>Haematopus ostralegus</i></li> <li>Dark-bellied Brent Goose <i>Branta bernicla bernicla</i></li> <li>Cormorant <i>Phalacrocorax carbo</i></li> <li>Great Crested Grebe <i>Podiceps cristatus</i></li> <li>Knot <i>Calidris canutus</i></li> <li>Grey Plover <i>Pluvialis squatarola</i></li> <li>Bar-tailed Godwit <i>Limosa lapponica</i>.</li> </ul>		
Dengie (Mid-Essex Phase 1) Ramsar site	3127.23	<p>Ramsar criterion 1:</p> <p>Qualifies by virtue of the extent and diversity of saltmarsh habitat present. Dengie, and the four other sites in the Mid-Essex Coast Ramsar site complex, includes a total of 3,237 ha, that represent 70% of the saltmarsh habitat in Essex and 7% of the total area of saltmarsh in Britain.</p> <p>Ramsar criterion 2:</p> <p>Dengie supports a number of rare plant and animal species. The Dengie has 11 species of nationally scarce plants:</p> <ul style="list-style-type: none"> <li>Sea kale <i>Crambe maritima</i></li> <li>Sea barley <i>Hordeum marinum</i></li> <li>Golden samphire <i>Inula</i></li> <li><i>Crithmoides</i></li> <li>Lax flowered sea lavender <i>Limonium humile</i></li> <li>The glassworts <i>Sarcocornia perennis</i> and <i>Salicornia pusilla</i></li> <li>Small cord-grass <i>Spartina</i></li> </ul>	None available.	Similar to Blackwater Estuary SPA (above).

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
		<p><i>maritime</i></p> <ul style="list-style-type: none"> <li>Shrubby sea-blite <i>Suaeda vera</i></li> <li>The eelgrasses <i>Zostera angustifolia</i>, <i>Z. marina</i> and <i>Z. noltei</i>.</li> <li>The invertebrate fauna includes the following Red Data Book species: <ul style="list-style-type: none"> <li>a weevil <i>Baris scolopacea</i></li> <li>a horsefly <i>Atylotus latistriatus</i></li> <li>a jumping spider <i>Euophrys browning</i></li> </ul> </li> </ul> <p>Ramsar criterion 3:</p> <p>This site supports a full and representative sequences of saltmarsh plant communities covering the range of variation in Britain.</p> <p>Ramsar criterion 5:</p> <p>Assemblages of international importance:</p> <p>Species with peak counts in winter:</p> <ul style="list-style-type: none"> <li>43828 waterfowl (5 year peak mean 1998/99-2002/2003)</li> </ul> <p>Ramsar criterion 6:</p> <p>Species/populations occurring at levels of international importance. Qualifying Species/populations (as identified at designation):</p> <p>Species with peak counts in winter:</p> <ul style="list-style-type: none"> <li>Dark-bellied brent goose <i>Branta bernicla bernicla</i></li> <li>Grey plover <i>Pluvialis squatarola</i></li> <li>Red knot <i>Calidris canutus islandica</i></li> </ul>		

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
		<p>Species/populations identified subsequent to designation for possible future consideration under criterion 6.</p> <p>Species with peak counts in winter:</p> <ul style="list-style-type: none"> <li>Bar-tailed godwit <i>Limosa lapponica lapponica</i></li> </ul>		
Large estuarine site in south-east England. The site comprises the major estuaries of the Colne, Blackwater, Crouch and Roach river.				
Essex Estuaries SAC	46140.82	<p>Annex 1 habitats that are a primary reason for selection of this site:</p> <ul style="list-style-type: none"> <li>Estuaries</li> <li>Mudflats and sandflats not covered by seawater at low tide</li> <li>Salicornia and other animals colonising mud and sand</li> <li>Spartina swards (<i>Spartinion maritimae</i>)</li> <li>Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>)</li> <li>Mediterranean and thermo-Atlantic halophilous scrubs</li> </ul> <p>Annex 1 habitats present as a qualifying feature:</p> <ul style="list-style-type: none"> <li>Sandbanks which are slightly covered by seawater all the time</li> </ul>	<p>With regard to the individual species and/or assemblage of species for which the site has been classified:</p> <ul style="list-style-type: none"> <li>Avoid the deterioration of the habitats of the qualifying features, and the significant disturbance of the qualifying features, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving the aims of the Birds Directive.</li> </ul> <p>Subject to natural change, to maintain or restore:</p> <ul style="list-style-type: none"> <li>The extent and distribution of the habitats of the qualifying features;</li> <li>The structure and function of the habitats of the qualifying features;</li> <li>The supporting processes on which the habitats of the qualifying features rely;</li> <li>The populations of the qualifying features;</li> <li>The distribution of the qualifying features within the site.</li> </ul>	Similar to Blackwater Estuary SPA (above).
The Stour and Orwell estuaries straddle the eastern part of the Essex/Suffolk border in eastern England. The estuaries include extensive mud-flats, low cliffs, saltmarsh and				

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
<p>small areas of vegetated shingle on the lower reaches. The mud-flats hold <i>Enteromorpha</i>, <i>Zostera</i> and <i>Salicornia</i> spp. The site also includes an area of low-lying grazing marsh at Shotley Marshes on the south side of the Orwell. In summer, the site supports important numbers of breeding Avocet <i>Recurvirostra avosetta</i>, while in winter they hold major concentrations of waterbirds, especially geese, ducks and waders. The geese also feed, and waders roost, in surrounding areas of agricultural land outside the SPA.</p> <p>The site has close ecological links with the Hamford Water and Mid-Essex Coast SPAs, lying to the south on the same coast.</p>				
Stour and Orwell Estuaries SPA	3676.92	<p>Annex I species:</p> <ul style="list-style-type: none"> <li>Over winter: Hen Harrier <i>Circus cyaneus</i></li> </ul> <p>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:</p> <p>Over winter:</p> <ul style="list-style-type: none"> <li>Black-tailed Godwit <i>Limosa limosa islandica</i></li> <li>Dunlin <i>Calidris alpina alpina</i></li> <li>Grey Plover <i>Pluvialis squatarola</i></li> <li>Pintail <i>Anas acuta</i></li> <li>Redshank <i>Tringa totanus</i></li> <li>Ringed Plover <i>Charadrius hiaticula</i></li> <li>Shelduck <i>Tadorna tadorna</i></li> <li>Turnstone <i>Arenaria interpres</i></li> </ul> <p>The area qualifies under Article 4.2 of the Directive (79/409/EEC) by regularly supporting at least 20,000 waterfowl including:</p> <ul style="list-style-type: none"> <li>Cormorant <i>Phalacrocorax carbo</i></li> <li>Pintail <i>Anas acuta</i></li> <li>Ringed Plover <i>Charadrius hiaticula</i></li> <li>Grey Plover <i>Pluvialis squatarola</i></li> <li>Dunlin <i>Calidris alpina alpina</i></li> <li>Black-tailed Godwit <i>Limosa limosa islandica</i></li> </ul>	<p>With regard to the individual species and/or assemblage of species for which the site has been classified ("the Qualifying Features" listed below);</p> <p>Avoid the deterioration of the habitats of the qualifying features, and the significant disturbance of the qualifying features, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving the aims of the Birds Directive.</p> <p>Subject to natural change, to maintain or restore:</p> <ul style="list-style-type: none"> <li>The extent and distribution of the habitats of the qualifying features;</li> <li>The structure and function of the habitats of the qualifying features;</li> <li>The supporting processes on which the habitats of the qualifying features rely;</li> <li>The populations of the qualifying features;</li> <li>The distribution of the qualifying features within the site.</li> </ul>	<p><b>Coastal squeeze</b> – Coastal defences are present along most of the Orwell coastline to mitigate for impacts from climate change, such as rising sea level. Unless changes are made to the management of the coastline, habitats supporting qualifying SPA birds will be lost or degraded through coastal squeeze, sedimentation and reduced exposure.</p> <p><b>Public access/disturbance</b> – Stour and Orwell Estuaries is subject to land- and water-based activities, including boating and water sports; walking; bait-digging; fishing; wildfowling; and military overflight training. These activities are likely to impact habitats supporting breeding and overwintering water birds. 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 is required to ensure the Estuaries are appropriately managed.</p> <p><b>Changes in species distribution</b> – Declines in the number of bird species present at Orwell coastline have occurred. This is likely to be the result of changes in population and distribution on an international scale, due to climate change.</p> <p><b>Invasive species</b> – An increase in <i>Spartina anglica</i> may be affecting the growth of <i>Spartina maritima</i>, a key habitat feature for qualifying bird roosting and feeding areas of saltmarsh and mudflat.</p> <p><b>Planning permission: General</b> – The issue of development in combination with other factors is not fully understood. To ensure management is appropriate to the SPA a better understanding of the sensitivities relating to each habitat, species and location to different types of development is required. Difficult</p>

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
		<ul style="list-style-type: none"> <li>• Redshank <i>Tringa tetanus</i></li> <li>• Shelduck <i>Tadorna tadorna</i></li> <li>• Great Crested Grebe <i>Podiceps cristatus</i></li> <li>• Curlew <i>Numenius arquata</i></li> <li>• Dark-bellied Brent Goose <i>Branta bernicla bernicla</i></li> <li>• Wigeon <i>Anas Penelope</i></li> <li>• Goldeneye <i>Bucephala clangula</i></li> <li>• Oystercatcher <i>Haematopus ostralegus</i></li> <li>• Lapwing <i>Vanellus vanellus</i></li> <li>• Knot <i>Calidris canutus</i></li> <li>• Turnstone <i>Arenaria interpres</i>.</li> </ul>		<p>issues highlighted by the SIP 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.</p> <p><b>Air pollution: impact from atmospheric nitrogen deposition</b> – 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.</p> <p><b>Inappropriate coastal management</b> – Due to the presence of existing hard sea defences, such as sea walls there is little scope for adaptation to rising sea levels. Any freshwater habitats behind failing seawalls are likely to be inundated by seawater, which would result in the loss of this habitat within the SPA.</p> <p><b>Fisheries: Commercial and estuarine</b> – Commercial fishing activities can be very damaging to inshore marine habitats and the bird species dependent on the communities they support. Any 'amber or green' categorised commercial fishing activities in European Marine Sites are assessed by Kent and Essex Inshore Fisheries Conservation Authority (IFCA). This assessment takes into account any in-combination effects of amber activities and/or appropriate plans or projects.</p>
Stour and Orwell Estuaries Ramsar site	3676.92	<p>Ramsar criterion 2</p> <p>Contains seven nationally scarce plants:</p> <ul style="list-style-type: none"> <li>• Stiff saltmarsh-grass <i>Puccinellia rupestris</i></li> <li>• Small cord-grass <i>Spartina maritime</i></li> <li>• Perennial glasswort <i>Sarcocornia perennis</i></li> </ul>	None available.	<p>Similar to Stour and Orwell Estuaries SPA (See above).</p> <p>A key threat identified by RIS was erosion.</p> <p><b>Erosion:</b> Natural coastal processes exacerbated by fixed sea defences, port development and maintenance dredging. Erosion is being tackled through sediment replacement for additional erosion that can be attributed to port development and maintenance dredging. A realignment site has been created on-site to make up for the loss of habitat due to capital</p>

Site Name	Area (ha)	Qualifying Features	Conservation objectives (only available for SACs & SPAs)	Key vulnerabilities / factors affecting site integrity
		<ul style="list-style-type: none"> <li>Lax-flowered sea lavender <i>Limonium humile</i></li> <li>Eelgrasses <i>Zostera angustifolia</i>, <i>Z. marina</i> and <i>Z. noltei</i>.</li> </ul> <p>Ramsar criterion 5</p> <p>Assemblages of international importance; species with peak counts in winter; 63,017 waterfowl.</p> <p>Ramsar criterion 6 species/ populations occurring at levels of international importance:</p> <p>Species with peak counts in spring/autumn:</p> <ul style="list-style-type: none"> <li>Common redshank , <i>Tringa totanus totanus</i></li> </ul> <p>Species with peak counts in winter:</p> <ul style="list-style-type: none"> <li>Dark-bellied brent goose, <i>Branta bernicla bernicla</i></li> <li>Northern pintail , <i>Anas acuta</i></li> <li>Grey plover , <i>Pluvialis squatarola</i></li> <li>Red knot , <i>Calidris canutus islandica</i></li> <li>Dunlin , <i>Calidris alpina alpina</i></li> <li>Black-tailed godwit , <i>Limosa limosa islandica</i></li> <li>Common redshank , <i>Tringa totanus totanus</i></li> </ul>		dredging. General background erosion has not been tackled although a Flood Management Strategy for the site is being produced.

# Appendix 2

## Review of other plans and projects

## District level Local Plans (strategic issues / 'core strategies') or county level plans providing for development

<b>North Essex Authorities Shared Strategic Plan<sup>30</sup></b>	
Plan Owner/ Competent Authority:	Braintree District Council, Colchester Borough Council, Tendring District Council
Related work HRA/AA:	None available
Notes on Plan documents:	<p>The Shared Strategic Plan will be included as Part 1 for the three individual Local Plans for each District/Borough.</p> <p>Provides for a minimum of 43,765 net additional homes over the relevant plan periods, of which 14,365 will be delivered in Braintree District (2016-2033), 18,400 in Colchester Borough (2013-2033), and 11,000 in Tendring District (2013-2033).</p> <p>Provides for 139.1 ha of employment land up to 2033, of which 43.3 ha will be in Braintree District (2016-33), 55.8 ha in Colchester Borough (2016-2033), and 40 ha in Tendring District (2016-2033).</p> <p>Includes improvements to A12, A120 and A133 including junction improvements and dualling of A120 between the A12 junction and Braintree, increased rail capacity, and support for sustainable transport.</p> <p>Three new garden communities are proposed: East of Colchester on the border of Colchester Borough and Tendring District, to deliver up to 2,500 homes within the plan period as part of an overall total of between 7,000 and 9,000 homes; West of Colchester on the border of Colchester Borough and Braintree District, to deliver up to 2,500 homes within the plan period as part of an overall total of between 15,000 and 20,000 homes; and West of Braintree in Braintree District, potentially on the border of Uttlesford District, to deliver up to 2,500 homes within the plan period as part of an overall total of between 10,000 and 13,000 homes.</p>
<b>Conclusions on potential effects of relevance to European sites within scope of HRA of Braintree Local Plan</b>	
Not applicable.	

<b>Babergh Core Strategy &amp; Policies (2011-2031) Local Plan<sup>31</sup></b>	
Plan Owner/ Competent Authority:	Babergh District Council
Related work HRA/AA:	Core Strategy Submission Draft HRA Screening Report September 2011 <sup>32</sup>
Notes on Plan documents:	<p>Local Plan was adopted in February 2014.</p> <p>Provision for 5,975 new dwellings and employment space to accommodate 9,700 new jobs during 2011-2031.</p> <p>Employment and housing growth will be accommodated within Babergh's existing settlement pattern and in new mixed and balanced communities on the edges of the towns and the Babergh Ipswich Fringe.</p>
<b>Conclusions on potential effects of relevance to European sites within scope of HRA of Braintree Local Plan</b>	
The HRA screening suggests that Babergh will primarily need to ensure the impacts on the Stour and Orwell	

<sup>30</sup> <http://www.babergh.gov.uk/planning-and-building/planning-policy/local-babergh-development-framework/core-strategy-and-policies-dpd/>

<sup>31</sup> <http://www.babergh.gov.uk/planning-and-building/planning-policy/local-babergh-development-framework/core-strategy-and-policies-dpd/>

<sup>32</sup> <http://www.babergh.gov.uk/planning-and-building/planning-policy/local-babergh-development-framework/core-strategy-and-policies-dpd/core-strategy-consultations/>

## Babergh Core Strategy & Policies (2011-2031) Local Plan<sup>31</sup>

estuaries are monitored, as other European sites which could potentially be affected will be monitored by other councils

The following types of potential likely significant effect were identified:

**Water resources and quality:** Provided the recommendations of the Water Cycle Study are incorporated into the Core Strategy, likely significant effects as a result of changes in water resources or quality are not predicted.

**Wind turbines:** Provided the recommendations are followed to make it clear that development supported by Policy CS9 must still meet other requirements for sustainability, including protection of European sites, likely significant effects are not predicted.

**Coastal processes:** Coastal squeeze has been identified as an issue at some locations along the Stour and Orwell Estuaries SPA / Ramsar site in Natural England monitoring records; however development close to the coast is not suggested outside existing built up areas. Therefore indirect effects through increased coastal squeeze are not predicted as a result of the Core Strategy.

**Recreational pressure:** Recreational use of the estuaries can result in disturbance of wintering birds. Babergh District Council is contributing to the wider mitigation strategy under the Haven Gateway Green Infrastructure Strategy and has made provision for new public open space at key sites close to the estuaries. As a precautionary approach is proposed this provides Babergh Council with the opportunity to take additional action if unexpected increases in disturbance occur. Therefore, subject to the mitigation strategy likely significant effects would not be predicted.

## Chelmsford City Council Core Strategy and Development Control Policies DPD

Plan Owner/ Competent Authority:	Chelmsford City Council
Related work HRA/AA:	Appropriate Assessment of the Chelmsford Core Strategy and Development Control Policies Submission Document DPD November 2006  Core Strategy and Development Control Policies Focused Review Sustainability Appraisal Report and HRA Screening Final Report February 2013
Notes on Plan documents:	2008 Chelmsford Core Strategy and Development Control Policies Document plus 2013 'Focused Review' which made changes to the DPD to improve compatibility with the NPPF.  Development provided for includes 16,170 new houses during 2001-2021.

### Conclusions on potential effects of relevance to European sites within scope of HRA of Braintree Local Plan

The HRA Screening of the Submission DPD identified likely significant effects from four development control policies:

- *DC3: Managing development density in different locations*, due to the proximity of housing development provided for at South Woodham Ferrers to Crouch and Roach Estuaries SPA and Ramsar site and consequent potential for recreational disturbance.
- *DC54: Promotion of employment clusters*, due to the proximity of employment development provided for at South Woodham Ferrers to Essex Estuaries SAC and Crouch and Roach Estuaries SPA and Ramsar site and consequent potential for water pollution, direct habitat loss and recreational disturbance.
- *DC55: Location of business development*, due to the proximity of employment development provided for at Battlesbridge and South Woodham Ferrers to Essex Estuaries SAC and Crouch and Roach Estuaries SPA and Ramsar site and consequent potential for water pollution, direct habitat loss and recreational disturbance.
- *DC56: Industrial and warehouse development*, due to the proximity of employment development provided for at South Woodham Ferrers to Essex Estuaries SAC and Crouch and Roach Estuaries SPA and Ramsar site and consequent potential for water pollution, direct habitat loss and recreational disturbance.

Recommended policy changes requiring protection of internationally designated nature conservation sites were deemed sufficient to address these potential effects.

The HRA Screening of the 2013 'Focused Review' of the Core Strategy did not identify any likely significant effects on European sites from the policy changes alone. The contribution of the policy changes to potential in-combination effects with other plans and projects was considered not significant.

## Colchester Core Strategy Review<sup>33</sup>

Plan Owner/ Competent Authority:	Colchester Borough Council
Related work HRA/AA:	HRA of Core Strategy HRA Screening of Focused Review reported within SA Scoping Report, March 2013
Notes on Plan documents:	Core Strategy was adopted in 2008 and was subject to a Focused Review in July 2014 which made minor changes for compliance with the NPPF.  The Core Strategy provides for 19,000 new homes during 2001-2021, focused on regeneration areas within Colchester Town and greenfield urban extensions to the north and south west of the town; over 80% will be on previously developed land. Provision is also made to accommodate 14,200 new jobs, focused on Colchester Town Centre/ Town Centre Fringe and Urban Gateways plus Strategic Employment Zones at University of Essex, North Colchester and Stanway.

### Conclusions on potential effects of relevance to European sites within scope of HRA of Braintree Local Plan

Appropriate assessment was carried out for the adopted Core Strategy and concluded that Colchester Borough Council's DPDs would not have an adverse effect on the integrity of a European site. As part of the appropriate assessment of the Core Strategy, Colchester Borough Council committed to implementing a long term survey and monitoring programme to gain a better understanding of visitors to European sites in Colchester and Tendring. This will enable the Council, Natural England and any other relevant stakeholders to implement site management measures to avoid or mitigate visitor impacts. This enabled the Council to conclude that its spatial plans will not adversely affect the integrity of European sites.

The HRA Screening of the Focused Review identified the potential for an increase in visitors to European sites but the Council concluded that as only small scale development would be acceptable in rural areas and policy ENV1 provides an appropriate safeguard to ensure that development adversely affecting Natura 2000 sites will not be permitted the Council, the Focused Review would not adversely affect European sites.

## Maldon District Local Development Plan

Plan Owner/ Competent Authority:	Maldon District Council
Related work HRA/AA:	Maldon District Council Pre-Submission Local Development Plan 2014 - 2029 Sustainability Appraisal Report incorporating Strategic Environmental Assessment and Habitats Regulations Assessment
Notes on Plan documents:	The Maldon District Local Development Plan was submitted to the Secretary of State for Examination-in-Public on 25 April 2014.  Development provided for in the Draft Plan includes at least 4,410 dwellings during 2014-2029.

### Conclusions on potential effects of relevance to European sites within scope of HRA of Braintree Local Plan

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 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

<sup>33</sup> <http://www.colchester.gov.uk/article/13303/Core-Strategy>

## Maldon District Local Development Plan

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.,

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.

## Rochford District Core Strategy

Plan Owner/ Competent Authority:	Rochford District Council
Related work HRA/AA:	Habitats Regulations Assessment Screening of Rochford Core Strategy, January 2010
Notes on Plan documents:	Core Strategy adopted December 2011 Development provided for includes a minimum of 4,600 dwellings during 2001-2021.

### Conclusions on potential effects of relevance to European sites within scope of HRA of Braintree Local Plan

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.

## Tendring District Local Plan<sup>34</sup>

Plan Owner/ Competent Authority:	Tendring District Council
Related work HRA/AA:	HRA of Regulation 27 Consultation Draft Core Strategy, November 2010 <sup>35</sup>
Notes on Plan	Proposed submission plan published for consultation November 2012. This provided for 4,000 net additional dwellings 2011-2021. Housing and economic development will be

<sup>34</sup> <http://188.39.22.30/node/4764>

<sup>35</sup> [http://www.tendringdc.gov.uk/sites/default/files/documents/planning/planning%20policy/FinalHRA\\_pdf1.pdf](http://www.tendringdc.gov.uk/sites/default/files/documents/planning/planning%20policy/FinalHRA_pdf1.pdf)

## Tendring District Local Plan<sup>34</sup>

documents:	<p>focused on the 'urban settlements' of Clacton-on-Sea; Harwich and Dovercourt; Frinton, Walton and Kirby Cross; Manningtree, Lawford and Mistley; and Brightlingsea.</p> <p>A number of Focused Changes we subject to consultation in 2014 but further changes are required to plan for the number of new homes required in the District. The formulation of these further changes is at an early stage.</p>
------------	--

### Conclusions on potential effects of relevance to European sites within scope of HRA of Braintree Local Plan

It was concluded that 8 of the 50 policies could have a significant effect on the condition of a number of international sites, namely the Stour and Orwell Estuaries SPA and Ramsar site, Hamford Water SPA and Ramsar site, the Colne Estuary SPA and Ramsar site, the Essex Estuaries SAC, and Abberton Reservoir SPA and Ramsar site.

The likely impacts are: changes to water quality; disturbance to bird species through increased recreational use of the international sites; disturbance to the habitats of the international sites through increased recreational use; direct habitat loss; disturbance to habitat outside the international sites, which supports the designated bird species; and disturbance to flight lines and bird movements through renewable energy development.

For of the draft Core Strategy policies have the potential to affect the integrity of one or more international sites. These policies are:

- Spatial Strategy Policy 3 Improving the Strategic Transport Network;
- Core Policy 6 Tackling Climate Change;
- Core Policy 19 Gypsies and Travellers; and
- Core Policy 21 Playing Pitches and Outdoor Sports Facilities.

A series of reduction and mitigation measures are proposed. If the council commits to adopt these measures a conclusion of no adverse effects on the integrity of the international sites can be drawn for the policies and the strategy as a whole, and in combination with other plans and programmes.

## Essex Minerals Local Plan

Plan Owner/ Competent Authority:	Essex County Council
Related work HRA/AA:	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 July 2014. 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.

### Conclusions on potential effects of relevance to European sites within scope of HRA of Braintree Local Plan

**Air quality:** Likely significant effects from increased heavy goods vehicle traffic on roads in proximity to European sites ruled out following amendment of the Plan to include supporting text requiring an air quality analysis where any proposal would result in an increase of more than 200 HGV movements per day within 200 m of a European site.

**Predation:** Following completion of mineral extraction it is common for minerals sites to be used for landfill. Landfill sites can attract large number of birds such as gulls or crows which can have an adverse predation effect on nesting birds at wildlife sites within 5 km of the landfill (particularly ground nesting species). Preferred minerals sites allocated by the Plan include ones within 5 km of Abberton Reservoir SPA and Ramsar site (wintering and passage waterfowl and cormorant populations sensitive to predation) and Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar site (little tern population particularly sensitive to predation). Likely significant predation effects were ruled out on the basis that the Plan adopt recommendations to prevent putrescible waste being sent for landfill at the relevant, preferred minerals sites.

## Essex Waste Local Plan

Plan Owner/	Essex County Council
-------------	----------------------

Essex Waste Local Plan	
Competent Authority:	
Related work HRA/AA:	Essex Waste Development Document – Preferred Approach Habitat Regulations Assessment – Screening Report, September 2011  Essex Waste Development Document – Potential Sites - Habitat Regulations Assessment Screening Report, September 2011
Notes on Plan documents:	Essex Replacement Waste Local Plan, The Preferred Approach 2013  The Waste Local Plan comprises the Waste Core Strategy, setting out the long-term direction for waste development and the plan to deliver this strategy; Development Management Policies for waste planning particularly when considering applications; Strategic Site Allocations for waste-related development; Non-Strategic Site Allocations for other preferred sites for waste processing plus any associated safeguarding and a Policies (previously Proposals) Map.
<b>Conclusions on potential effects of relevance to European sites within scope of HRA of Braintree Local Plan</b>  The HRA of Preferred Approaches ruled out likely significant effects on any European site, particularly due to the need to comply with a policy requirement for all waste management developments to avoid unacceptable impacts on internationally designated biodiversity sites.  The HRA of potential waste sites was unable to rule out the following likely significant effects:  Noise: Unable to rule out likely significant noise disturbance effects from waste recycling and storage operations at site W12 Ballast Quay/Fingringhoe and site W14 Alresford Quarry on wildfowl interest of Colne Estuary SPA/Ramsar site. Recommended that sites are either not taken forward or is subject to project level HRA. Noise effects on Colne Estuary SPA/Ramsar site were deemed less likely for sites L1 Towerfield/Fingringhoe, L2 Holmwood Farm/Fingringhoe, and L13R Wellwick, St Osyth but project level HRA was nevertheless recommended on a precautionary basis to rule out likely significant effects.  Water quality: Unable to rule out likely significant water quality effects on European sites from increased shipping movements or dredging associated with site W12 Ballast Quay/Fingringhoe.	

Essex Local Transport Plan 3 2011-2026 (LTP3)	
Plan Owner/ Competent Authority:	Essex County Council
Related work HRA/AA:	HRA Screening Report June 2011
Notes on Plan documents:	Essex Transport Strategy: the Local Transport Plan for Essex, June 2011  Transport priorities for the Thames Gateway, the part of Essex in which Basildon is located, are: <ul style="list-style-type: none"> <li>• Providing for and promoting access by sustainable modes of travel to new development areas;</li> <li>• Improving public transport links within and between the Thames Gateway towns (including the A13 Passenger Transport Corridor and South Essex Rapid Transport (SERT) schemes);</li> <li>• Improving the availability of sustainable travel choices and raising public awareness of these through travel planning;</li> <li>• Addressing maintenance, signing and broken links in the cycle network to improve conditions for cyclists and create a safer atmosphere for cycling.</li> <li>• Improving the attractiveness and ease of use of public spaces to support regeneration;</li> <li>• Improving journey time reliability on strategic inter-urban routes including the A127, A129, A130 and the A13;</li> <li>• Improving access to London Gateway port and Southend Airport.</li> </ul>
<b>Conclusions on potential effects of relevance to European sites within scope of HRA of Braintree Local Plan</b>	

### Essex Local Transport Plan 3 2011-2026 (LTP3)

The protective approach specified by Policy 9 of the LTP3, the provision of policies which promote a modal shift away from private car use (Policies 4, 7, 8, 14 and 15), and the flexibility inherent in the Essex LTP3 which allows for manipulation of future plans and projects to avoid impacts on N2K sites, means that the ecological integrity of all Natura 2000 sites located within the zone of influence of the Essex LTP3 would not be adversely affected by the LTP3 or its policies.

## Significant projects

**Bramford to Twinstead Tee 400kV Connection:** The proposed Bramford to Twinstead transmission connection is a new 400,000 volt electricity connection between Bramford substation, west of Ipswich in Suffolk and Twinstead, south of Sudbury in Essex.

This new connection would help upgrade the electricity transmission network in East Anglia, enabling the connection of a number of new power generators, including King's Lynn gas-fired power station, Sizewell C nuclear power station and East Anglia Offshore Wind.

However, changes to generation projects in East Anglia area mean that this proposed connection does not need to be in place as early as originally expected and therefore the project has temporally been put on hold. Based purely on the project location, there may be a potential for adverse effects on the Stour and Orwell Estuaries SPA and Ramsar site but an HRA for the proposal is not yet available. Any future proposal for this project should consider the potential for effects on European sites in combination with those identified for the Braintree Local Plan in this HRA Screening Report.