

Colchester Borough Council

Habitat Regulations Assessment

Colchester Borough Publication Draft Local Plan - Section 2

Final report

Prepared by LUC

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Colchester Borough Council

Habitat Regulations Assessment Colchester Borough Publication Draft Local Plan - Section 2

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Chapter 1

Introduction

Background

1.1 LUC has been commissioned by Colchester Borough Council to carry out an updated Habitats Regulations Assessment (HRA) of Section 2 of the Colchester Borough Publication Draft Local Plan.

1.2 The previous HRA of the Publication Draft Colchester Local Plan was submitted to Natural England which supported the conclusions reached as confirmed in a Statement of Common Ground.

1.3 This HRA iteration updates the previous assessment given the time expired, the update to the Section 1 HRA and the Inspectors conclusions on this, and in light of any updates in case law. This HRA replaces all previous HRA drafts.

1.4 This HRA assesses the impacts of Section 2 of the Colchester Borough Publication Draft Local Plan with which it should be read in conjunction.

Context for the Colchester Borough Publication Draft Local Plan

1.5 Colchester Borough Council published its Publication Draft Local Plan in June 2017 and submitted it in October 2017. The Local Plan sets out a vision, strategy, objectives and policies for planning and delivery across the Borough. The plan includes two sections, Section 1 is a shared strategic plan prepared with Braintree District Council and Tendring District Council, collectively the North Essex Authorities (NEAs). Section 2 includes policies and allocations specific to Colchester Borough. Taken together, these two sections of the plan combine to provide a strategy and policies for shaping the Borough and meeting and managing the Borough's housing, employment and other land use needs, as well as protecting and conserving the Borough's natural, cultural and historic assets until 2033 and beyond.

1.6 Examination hearing sessions for the Shared Strategic Section 1 Local Plan were held in January and May 2018 and January 2020. In May 2020 the Inspector said in a letter to the NEAs that the Colchester/Braintree Borders and West of Braintree Garden Community proposals are not, in his view, deliverable. Consequently, the NEAs published Main Modifications for consultation, which removed these two garden communities. A separate HRA, which was prepared by LUC, was undertaken for the Section 1 Local Plan. The

NEAs, as competent authorities under the Habitat Regulations, concluded that the policies of the Section 1 Plan provide sufficient certainty that the necessary mitigation measures will be implemented in order to ensure that the Section 1 Plan (either alone or in combination with other plans or projects) would not adversely affect the integrity of any European site.

1.7 The Section 1 Local Plan Inspector concluded in his Final Report (December 2020) that subject to the Main Modifications, the Plan is therefore capable of being adopted in compliance with the Conservation of Habitats and Species Regulations 2017.

The requirement to undertake Habitats Regulations Assessment of Development Plans

1.8 The requirement to undertake HRA of development plans was confirmed by the amendments to the Habitats Regulations published for England and Wales in 2007¹; the currently applicable version is the Habitats Regulations 2017, as amended². When preparing its Local Plan, Colchester Borough Council is therefore required by law to carry out an HRA. Colchester Borough Council can commission consultants to undertake HRA work on its behalf and this (the work documented in this report) is then reported to and considered by Colchester Borough Council as the 'competent authority'. Colchester Borough Council will consider this work and may only progress the Local Plan if it considers that the Plan will not adversely affect the integrity³ of any European site. The requirement for authorities to comply with the Habitats Regulations when preparing a Local Plan is also noted in the Government's online Planning Practice Guidance (PPG).

1.9 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):

- SACs are designated under the Habitats Regulations as amended and target particular habitat types (specified in Annex 1 to the Habitats Directive) and species (specified in Annex II to the Habitats Directive). These annexes to the Habitats Directive list habitat types and species (excluding birds) considered to be most in need of conservation at a European level. Designation of SACs also has regard to the threats of degradation or destruction to which the sites are exposed and, before EU exit day, to the coherence of the Natura 2000 network of European sites. After EU exit day, regard is had to the importance of such sites for the coherence of the national site network.
- SPAs are areas classified⁴ for rare and vulnerable birds or regularly occurring migratory species.
- Potential SPAs (pSPAs)⁵, candidate SACs (cSACs)⁶, Sites of Community Importance (SCIs)⁷ and Ramsar sites should also be included in the HRA.
- 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).

1.10 For ease of reference during HRA, these designations can be collectively referred to as European sites⁸ despite Ramsar designations being at the international level.

1.11 The overall purpose of the HRA is to conclude whether or not a proposal or policy, or the 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 the 'qualifying features' for which the European site was designated, i.e.:

- SACs – Annex I habitat types and Annex II species⁹;
- SPAs – Annex I birds and regularly occurring migratory species not listed in Annex I¹⁰;

¹ The Conservation (Natural Habitats, &c.) (Amendment) Regulations 2007 (2007) SI No. 2007/1843.

² The Conservation of Habitats and Species Regulations 2017 (2017) SI No. 2017/1012, as amended by The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (SI 2019/579).

³ The integrity of a site is the coherence of its ecological structure and function, across its whole area, that enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was designated. (Source: UK Government [Planning Practice Guidance](#))

⁴ Classified (a) before the day of the UK's exit from the EU (31 January 2020) in accordance with Article 4(1) or 4(2) of the European Union Wild Birds Directive for rare and vulnerable birds (as listed in Annex I of the Directive), and under Article 4(2) for regularly occurring migratory species not listed in Annex I, or (b) after exit day under the retained transposing regulations.

⁵ Potential SPAs are sites that have been approved by the Minister for formal consultation but not yet proposed to the European Commission, as listed on the [GOV.UK website](#).

⁶ Candidate SACs are sites that have been submitted to the European Commission, but not yet formally adopted, as listed on the [JNCC's SAC list](#).

⁷ SCIs are sites that had been adopted by the European Commission before the day of the UK's exit from the EU (31 January 2020) but not yet formally designated as SACs by the UK Government.

⁸ 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.

⁹ As listed in the site's citation on the JNCC website (all features of European importance, both primary and non-primary, need to be considered).

¹⁰ As identified in sections 3.1, 3.2 and 4.2 of the SPA's standard data form on the JNCC website; species for which the site assessment of population (abbreviated to 'Pop.' in table at section 3.1 and 3.2) is 'D' (non-significant population) are not qualifying features and are only relevant to the HRA if qualifying features are dependent on them. Information from SAC and Spa Standard Data Forms is also published by the JNCC in the ['Natura 2000 site details - spreadsheet'](#). At sites where there remain differences between species listed in the [2001 SPA Review](#) and the extant site citation in the standard data form, the relevant country agency (Natural England or Natural Resources Wales) should be contacted for further guidance.

- Ramsar sites – the reasons for listing the site under the Convention¹¹.

1.12 Significantly, HRA is based on the precautionary principle meaning that where uncertainty or doubt remains, an adverse impact should be assumed.

Stages of HRA

1.13 The HRA of development plans is undertaken in stages (as described below) and should conclude whether or not a proposal would adversely affect the integrity of the European site in question.

1.14 The HRA should be undertaken by the ‘competent authority’, in this case Colchester Borough Council, and LUC has been commissioned to do this on the Council’s behalf. The HRA also requires close working with Natural England as the statutory nature conservation body¹² in order to obtain the necessary information, agree the process, outcomes and 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.

Requirements of the Habitats Regulations

1.15 In assessing the effects of a Local Plan in accordance with Regulation 105 of the Conservation of Habitats and Species Regulations 2017, as amended, there are potentially two tests to be applied by the competent authority: a ‘Significance Test’ followed, if necessary, by an Appropriate Assessment which would inform the ‘Integrity Test’. The relevant sequence of questions is as follows:

- Step 1: Under Reg. 105(1)(b), consider whether the plan is directly connected with or necessary to the management of the sites. If not, as is the case for the Colchester Local Plan, proceed to Step 2.
- Step 2: Under Reg. 105(1)(a) consider whether the plan is likely to have a significant effect on a European site, either alone or in combination with other plans or projects (the ‘Significance Test’). If yes, proceed to Step 3.
- Step 3: Under Reg. 105(1), make an Appropriate Assessment of the implications for the European site in view of its current conservation objectives (the ‘Integrity Test’). In so doing, it is mandatory under Reg. 105(2) to consult Natural England, and optional under Reg. 105(3) to take the opinion of the general public.
- Step 4: In accordance with Reg. 105(4), but subject to Reg. 107, give effect to the land use plan only after having ascertained that the plan would not adversely affect the integrity of a European site.
- Step 5: Under Reg. 107, if Step 4 is unable to rule out adverse effects on the integrity of a European site and no alternative solutions exist then the competent authority may nevertheless agree to the plan or project if it satisfies the derogation tests including there being no satisfactory alternative, it being carried out for ‘imperative reasons of overriding public interest’ (IROPI), and the favourable conservation status of the qualifying features being maintained.

1.16 Table 1.1: below summarises the stages and associated tasks and outcomes typically involved in carrying out a full HRA of a development plan, based on various guidance documents^{13, 14, 15, 16}.

Table 1.1: Stages of HRA

Stage	Task	Outcome
Stage 1: HRA Screening	Description of the development plan. Identification of potentially affected European sites and factors contributing to their integrity. Review of other plans and projects.	Where effects are unlikely, prepare a ‘finding of no significant effect report’. Where effects judged likely, or lack of information to prove otherwise, proceed to Stage 2.

¹¹ As set out in section 14 of the relevant ‘Information Sheet on Ramsar Wetlands’ available on the JNCC website.

¹² Regulation 5 of the Habitats Regulations 2017.

¹³ UK Government Planning Practice Guidance, available from <https://www.gov.uk/guidance/appropriate-assessment>

¹⁴ European Commission (2001) 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.

¹⁵ DCLG (2006) Planning for the Protection of European Sites: Appropriate Assessment

¹⁶ RSPB (2007) The Appropriate Assessment of Spatial Plans in England. A guide to why, when and how to do it.

Stage	Task	Outcome
	Assessment of likely significant effects of the development plan alone or in combination with other plans and projects.	
Stage 2: Appropriate Assessment (where Stage 1 does not rule out likely significant effects)	Information gathering (development plan and European Sites). Impact prediction. Evaluation of development plan impacts in view of conservation objectives. Where impacts are considered to affect qualifying features, identify how these effects will be avoided or reduced.	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 or reduced, 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). Demonstrate no alternatives exist. 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.

1.17 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 or reduce effects. The need to consider alternatives could imply more onerous changes to a plan document. It is generally understood that the derogation tests are likely to be justified only very occasionally and would involve engagement with the Government.

Recent Case Law Changes

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

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

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

to avoid or reduce the harmful effects of the plan or project on that site.

1.20 In light of the above, the HRA screening stage for the Local Plan has not relied upon avoidance or mitigation measures to draw conclusions as to whether the Local Plan would result in likely significant effects on European sites, with any such measures being considered at the Appropriate Assessment stage as appropriate. This is discussed in more detail in **Section 3** below.

1.21 This HRA also fully considers the recent Holohan v An Bord Pleanala (9 Nov 2018) CJEU judgement which stated that:

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

Article 6(3) of Directive 92/43 must be interpreted as meaning that the competent authority is permitted to grant to a plan or project consent which leaves the developer free to determine subsequently certain parameters relating to the construction

phase, such as the location of the construction compound and haul routes, only if that authority is certain that the development consent granted establishes conditions that are strict enough to guarantee that those parameters will not adversely affect the integrity of the site.

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

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

1.23 In addition to this, the HRA takes into consideration the 'Wealden' judgement and the 'Dutch Nitrogen Case' judgement from the Court of Justice for the European Union.

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

1.25 In light of this judgement, the HRA therefore considers traffic growth based on the effects of development provided for by the Plan in combination with other drivers of growth such as development proposed in neighbouring districts and demographic change.

1.26 The 'Coöperatie Mobilisation for the Environment and Vereniging Leefmilieu (Dutch Nitrogen)' judgement stated that *"May the positive effects of the autonomous decrease in the nitrogen deposition ... be taken into account in the appropriate assessment..., it is important that the autonomous decrease in the nitrogen deposition be monitored and, if it transpires that the decrease is less favourable than had been assumed in the appropriate assessment, that adjustments, if required, be made"*

1.27 The judgement states that according to previous case law *"...it is only when it is sufficiently certain that a measure will make an effective contribution to avoiding harm to the integrity of the site concerned, by guaranteeing beyond all reasonable doubt that the plan or project at issue will not adversely affect the integrity of that site, that such a measure may be taken into consideration in the 'appropriate assessment' within the meaning of Article 6(3) of the Habitats Directive"*

1.28 The HRA therefore only considers the existence of conservation and/or preventative measures if the expected benefits of those measures are certain at the time of the assessment. The HRA will also ensure that if a threshold approach is applied it will consider the risk of significant effects being produced even if below the threshold values to ensure that there is no adverse effect on integrity of the European sites.

Structure of this report

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

- **Chapter 2: The Local Plan** summarises the content of Section 2 of the Colchester Borough Publication Draft Local Plan, which is the subject of this report.
- **Chapter 3: HRA Method** sets out the approach used, and the specific tasks undertaken during the screening and appropriate assessment of the HRA.
- **Chapter 4: HRA Screening Assessment** describes the findings of the screening stage of the HRA.
- **Chapter 5: Appropriate Assessment** sets out the findings of the Appropriate Assessment stage of the HRA.
- **Chapter 6: Conclusions** summarises the HRA conclusions for Section 2 of the Colchester Borough Publication Draft Local Plan and describes the next steps to be undertaken.

Chapter 2

Section 2 of the Colchester Borough Publication Draft Local Plan

Vision

2.1 The overarching vision for Colchester in 2033 is:

‘Colchester will be an active and welcoming town with its rich and prestigious heritage treasured and showcased for all to enjoy. Colchester will be acclaimed for the creative, innovative and sustainable ways in which it addresses the wide range of challenges facing the Borough, including climate change; population growth and its changing composition; new lifestyle and technological innovations; creating and maintaining strong safe, healthy communities; and shifting market forces.

The Council will work proactively to ensure that the historic Town Centre continues its role as the cultural and economic heart of the Borough and international visitor destination. The surrounding urban area of Colchester will continue to provide a focus for new housing and employment with good transport accessibility and links to green spaces within both urban areas and the adjacent countryside. Tiptree, Wivenhoe and West Mersea are the largest of the Borough’s sustainable settlements and will provide essential services and facilities to their rural hinterland. The rural hinterland will remain home to an array of distinctive and thriving villages, set amidst beautiful landscapes and coastal areas which will be protected and enhanced for the enjoyment of all.

Colchester has made the most of its brownfield sites in recent years, revitalising large areas of the town, providing an array of high quality new homes, businesses, and facilities. Colchester will build on this progress with the delivery of a range of high quality greenfield developments and regenerating further brownfield sites where they become available. Working in partnership with our neighbours and local communities, two new exemplary Garden Communities to the East and West will become innovatively designed, sustainable communities enabling a strong sense of local identity, social inclusion, and involvement; well-co-ordinated and timely delivery of high quality infrastructure and facilities; good links to the Borough’s primary hub at Colchester Town Centre; a range of market and affordable housing, and an array of job opportunities, together with opportunities for sport; renewable energy; leisure and recreation; walking and cycling, and growing produce.

2.2 *The Borough will enable the provision of a wide range of new housing that addresses the need for affordable, well-designed and adaptable homes that meet the needs of a diverse market, including families, young people/students, and an increasing number of older residents. New development will be designed and located to ensure that residents are, from the start, able to reach a wide range of destinations using sustainable transport methods. The Council with its partners will pursue a range of funding options to ensure the timely delivery of new infrastructure and facilities.*

Colchester will boast a diverse and thriving economy within a prosperous South East region, supported by high quality digital infrastructure and accessible locations for new employment development, providing job opportunities for all. The Borough Council will pursue commercial opportunities that support job creation and generate revenue to help sustain the delivery of essential public services to the whole community, working in partnership with public and private sector partners. Colchester will provide an array of high quality training and educational opportunities at all levels, providing equality of opportunity for all. In particular, the University of Essex will grow in its role as a leading higher education institution, developing strong links to the new Garden Community as well as the Town Centre and East Colchester.'

2.3 The overarching vision is supported by three themes, which are used as a framework for 16 strategic objectives:

Sustainable Growth:

Strategic Objectives

2.4 Strategic objectives for this theme include:

- Ensure new development is sustainable and minimises the use of scarce natural resources and addresses the causes and potential impacts of climate change, and encourages renewable energy.
- Focus new development at sustainable locations to create new communities with distinctive identities whilst supporting existing communities, local businesses, and sustainable transport.
- Provide high quality housing of all tenures at accessible locations to accommodate our growing community.
- Ensure there are sufficient sites allocated in the right locations to support employment growth over the plan period.
- Focus development at accessible locations which support public transport, walking and cycling, and reduce the need to travel, and enhance sustainable travel connections.

- Protect and enhance the vitality and viability of Colchester's historic Town Centre.
- Secure infrastructure to support new development.
- Promotion of healthy lifestyles through the provision and enhancement of sport, leisure and recreation facilities, public open space and green infrastructure.

Natural Environment:

Strategic Objectives

2.5 Strategic objectives for this theme include:

- Protect the countryside and coast.
- Develop a green infrastructure network across the Borough.
- Ensure new development avoids areas of flood risk and reduces future flood risk where possible.
- Protect and enhance landscapes, biodiversity, green spaces, air and water quality, and river corridors.
- Protect and enhance designated sites, geodiversity and soils.

Places:

Strategic Objectives

2.6 Strategic objectives for this theme include:

- Ensure the unique qualities of different communities and environments in the Borough are identified, protected and enhanced through policies and allocations which ensure high quality, consistency, equity and responsiveness to local character.
- Promote high quality design and sustain Colchester's historic character, found in its buildings, townscape and archaeology.
- Improve streetscapes, open spaces and green links to provide attractive and accessible spaces for residents to live, work and play.

Chapter 3

Method

3.1 The HRA of the Local Plan comprises of two stages:

- Screening Assessment; and
- Appropriate Assessment.

3.2 The methods undertaken for each of these assessments is provided in more detail below.

Screening Assessment

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

3.4 The purpose of the screening stage is to:

- Identify all aspects of the plan which would have no effect on a European site, so that that they can be eliminated from further consideration in respect of this and other plans;
- Identify all aspects of the plan which would not be likely to have a significant effect on a European site (i.e. would have some effect, because of links/connectivity, but which are not significant), either alone or in combination with other aspects of the same plan or other plans or projects, which therefore do not require 'appropriate assessment'; and
- Identify those aspects of the plan where it is not possible to rule out the risk of significant effects on a European site, either alone or in combination with other plans or projects. This provides a clear scope for the parts of the plan that will require appropriate assessment.

Identification of European sites which may be affected by the Plan

3.5 In order to initiate the search of European sites that could potentially be affected by the Local Plan, it is established practice in HRAs to consider European sites within the local

planning authority areas covered by a Plan, and also within a buffer distance from the boundary of the Plan area.

3.6 A distance of 20km was used to identify European sites likely to be affected by impacts relating to development in Colchester Borough. In addition to this, consideration was also given to European sites connected to the plan area beyond

Table 3.1: European sites within 20km of Colchester Borough.

European Site	Closest Distance / Location from Colchester Borough
SACs	
Essex Estuaries	Within the Borough
Hamford Water	13.5km / East
SPAs	
Abberton Reservoir	Within the Borough
Blackwater Estuary (Mid-Essex Coast Phase 4)	Within the Borough
Colne Estuary (Mid-Essex Coast Phase 2)	Within the Borough
Stour and Orwell Estuaries	Within the Borough
Dengie (Mid-Essex Coast Phase 1)	2.5km / South
Outer Thames Estuary	3.5km / South
Hamford Water	13.5km / East
Foulness (Mid-Essex Coast Phase 5)	14.7km South-east
Crouch and Roach Estuaries (Mid-Essex Coast Phase 3)	15.9km / South
Ramsar sites	
Abberton Reservoir	Within the Borough
Blackwater Estuary (Mid-Essex Coast Phase 4)	Within the Borough
Colne Estuary (Mid-Essex Coast Phase 2)	Within the Borough
Stour and Orwell Estuaries	Within the Borough
Dengie (Mid-Essex Coast Phase 1)	2.5km / South
Hamford Water	13.5km / East
Foulness (Mid-Essex Coast Phase 5)	14.7km South-east
Crouch and Roach Estuaries (Mid-Essex Coast Phase 3)	15.9km / South

3.8 The designated features and conservation objectives of the European sites, together with current pressures on and potential threats, was established using Data Forms for SACs and SPAs¹⁷ and Information Sheets for Ramsar Wetlands published on the JNCC website¹⁸, as well as Natural England's Site Improvement Plans¹⁹, Supplementary Advice Notes²⁰ and the most recent conservation objectives published on the Natural England website (most were

this distance, for example through hydrological pathways or recreational visits by residents of Colchester.

3.7 European sites identified for inclusion in the HRA are listed below in **Table 3.1** and **Figure 1** in **Appendix A**. Detailed information about each site is provided in **Appendix B**.

published in 2014)²¹. This analysis enabled European site interest features to be identified, along with the features of each European site which determine site integrity and the specific sensitivities and threats facing the site. This information was then used to inform an assessment of how the potential impacts of the Local Plan may result in likely significant effects on each of the European sites in question, either alone or in-combination.

¹⁷ These were obtained from the Joint Nature Conservation Committee and Natural England websites (www.jncc.gov.uk and www.naturalengland.org.uk)

¹⁸ www.jncc.defra.gov.uk

¹⁹ Natural England is in the process of compiling Site Improvement Plans for all Natura 2000 sites in England as part of the Improvement programme for England's Natura 2000 sites (IPENS).

²⁰ Supplementary Advice Notes, Natural England, <http://publications.naturalengland.org.uk/category/6490068894089216>

²¹ <http://publications.naturalengland.org.uk/category/6490068894089216>

Assessment of ‘Likely Significant Effect’

3.9 As required under Regulation 105 of The Conservation of Habitats and Species Regulations 2017 (the ‘Habitats Regulations’), an assessment has been undertaken of the ‘likely significant effects’ of the Plan. The assessment has been prepared in order to identify which policies or site allocations would be likely to have a significant effect on European sites. The screening assessment has been conducted without taking pre-embedded mitigation into account, in accordance with the *‘People over Wind’* judgment.

3.10 Consideration will be given to the potential for the development proposed to result in significant effects associated with:

- Physical loss of/damage to habitat;
- Non-physical disturbance (noise, vibration and light);
- Non-toxic contamination;
- Air pollution;
- Recreation pressure; and
- Changes to hydrology including water quality and quantity.

3.11 This approach also allows for consideration to be given to the cumulative effects of the site allocations rather than focussing exclusively on individual developments provided for by the Local Plan.

3.12 A risk-based approach involving the application of the precautionary principle is adopted in the assessment, such that a conclusion of ‘no significant effect’ will only be reached where it is considered very unlikely, based on current knowledge and the information available, that a proposal in the Local Plan would have a significant effect on the integrity of a European site. The screening assessment identifies assumptions that have been applied to enable specific impacts on European sites to either be screened in or out.

Interpretation of ‘Likely Significant Effect’

3.13 Relevant case law helps to interpret when effects should be considered as a Likely Significant Effect, when carrying out HRA of a land use plan.

3.14 In the Waddenzee case²², 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:

3.15 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).

3.16 An opinion delivered to the Court of Justice of the European Union²³ commented that:

“The requirement that an effect in question be ‘significant’ exists in order to lay down a de minimis threshold. Plans or projects that have no appreciable effect on the site are thereby excluded. If all plans or projects capable of having any effect whatsoever on the site were to be caught by Article 6(3), activities on or near the site would risk being impossible by reason of legislative overkill.”

3.17 This opinion (the ‘Sweetman’ case) therefore allows for the authorisation of plans and projects whose possible effects, alone or in combination, can be considered ‘trivial’ or de minimis; referring to such cases as those “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

3.18 Some of the potential effects of the Local Plan could be mitigated through the implementation of other policies in the plan itself, such as the provision of green infrastructure within new developments (which could help mitigate increased pressure from recreation activities at European sites). Nevertheless, in accordance with the recent *‘People over Wind’* judgement, avoidance and mitigation measures cannot be relied upon at the Screening Stage, and therefore, where such measures exist, they will be considered at the Appropriate Assessment stage for impacts and policies where likely significant effects, either alone or in-combination, cannot be ruled out.

In-combination Effects

3.19 Regulation 102 of the Amended Habitats Regulations 2017 requires an Appropriate Assessment where “a land use plan is likely to have a significant effect on a European site (either alone or in combination with other plans or projects) and is not directly connected with or necessary to the management of the site”. Therefore, it will be necessary to

²² ECJ Case C-127/02 “Waddenzee” Jan 2004.

²³ Advocate General’s Opinion to CJEU in Case C-258/11 Sweetman and others v An Bord Pleanála 22nd Nov 2012.

consider whether any impacts identified from the Local Plan may combine with other plans or projects to give rise to significant effects in combination.

3.20 This exercise will be carried out as part of the screening stage of the HRA. The potential for in-combination effects will only be considered for those Plan components identified as unlikely to have a significant effect alone, but which could act in combination with other plans and projects to produce a significant effect. This approach accords with recent guidance on HRA.

3.21 The first stage in identifying 'in-combination' effects involves identifying which other plans and projects in addition to the Local Plan may affect the European sites that will be the focus of this assessment. This exercise will seek to identify those components of nearby plans that could have an impact on the European sites considered as part of this HRA, e.g. areas or towns where additional housing or employment development is proposed near to the same European sites (as there could be effects from the transport, water use, infrastructure and recreation pressures associated with the new developments).

3.22 The potential for in-combination impacts has been focussed in Colchester and any authorities that overlap with European sites considered within this HRA. The findings of any associated HRA work for those plans will be reviewed where available. With help from the Council, any strategic projects in the area that could have in-combination effects with the Local Plan will also be identified and reviewed, if applicable.

3.23 Should any other plans or projects be identified throughout the HRA process that could lead to in-combination effects on European sites with the Local Plan, they will be included in the review.

3.24 The HRA Screening will identify and review other plans and projects for consideration of in-combination effects and will outline the components of each plan or project that could have an impact on nearby European sites and considering the findings of the accompanying HRA work (where available). This information will be updated as the HRA work for the Local Plan progresses. The local plans and associated HRAs of the following authorities will be included as a minimum:

- Tendring District;
- Braintree District;
- East Suffolk District;
- Ipswich Borough;

- Maldon District;
- Chelmsford City;
- Babergh District;
- Uttlesford District;
- South Cambridgeshire District; and
- St Edmundsbury Borough.

3.25 In addition, the following key plans will be included as they are developed further:

- Wivenhoe Neighbourhood Plan;
- Essex Minerals Local Plan;
- Essex Waste Local Plan; and
- Essex Local Transport Plan.

3.26 The Government's National Infrastructure Planning website²⁴ will also be reviewed for major projects that could have significant effects in combination with those of the Local Plan.

Appropriate Assessment

3.27 The Appropriate Assessment stage of HRA focuses on those policies and related impacts judged likely to have a significant effect at the Screening stage, and seeks to conclude whether, in light of mitigation and avoidance measures, they would result in an adverse effect 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.

²⁴ <https://infrastructure.planninginspectorate.gov.uk/projects/south-east/>

Chapter 4

Screening Assessment

4.1 As described in **Chapter 3**, a screening assessment was carried out in order to identify the likely significant effects of the Local Plan on the European sites within 20km. The full screening matrix, which sets out the decision-making process used for this assessment can be found in **Appendix C** and the findings are summarised below.

HRA Screening of Policies

No 'Likely Significant Effect' Predicted

4.2 The following policies are not expected to result in development and therefore will not result in significant effects on European sites:

- Policy SG1: Colchester's Spatial Hierarchy
- Policy SG5: Centre Hierarchy
- Policy SG6a Local Centres
- Policy SG7: Infrastructure Delivery and Impact Mitigation
- Policy SG8: Neighbourhood Plans
- ENV4: Dedham Vale Area of Outstanding Natural Beauty Plans
- Policy ENV5: Pollution and Contaminated Land
- Policy PP1: Generic Infrastructure and Mitigation Requirements
- Policy TC2: Retail Frontages
- Policy TC4: Transport in Colchester Town Centre
- Policy NC4: Transport in North Colchester
- Policy SC3: Transport in South Colchester
- Policy EC4: Transport in East Colchester
- Policy WC5: Transport in West Colchester
- Policy DM1: Health and Wellbeing
- Policy DM8: Affordable Housing
- Policy DM9: Development Density

- Policy DM10: Housing Diversity
- Policy DM12: Housing Standards
- Policy DM15: Design and Amenity
- Policy DM16: Historic Environment
- Policy DM17: Retention of Open Space and Recreation Facilities
- Policy DM18: Provision of Public Open Space
- Policy DM19: Private Amenity Space
- Policy DM22: Parking
- Policy DM23: Flood Risk and Water Management
- Policy DM24: Sustainable Urban Drainage Systems

4.3 The following policies will not result in development and will contribute to ensuring the safeguarding of European sites:

- Policy ENV1: Environment
- Policy ENV2: Coastal Areas
- Policy ENV3: Green Infrastructure

4.4 The following policies will not directly result in development but do support proposals for renewable energy projects:

- Policy CC1: Climate Change
- Policy DM25: Renewable Energy, Water, Waste and Recycling

Policies resulting in development or with potential pathways to European Sites where the scale and location of the impact is negligible, or the effect is insignificant.

4.5 The following policies could result in some development, but the development arising would be either located away from sensitive European sites within the urban area or would be small in scale so would not be expected to contribute significantly to increased vehicle traffic, recreation pressure or changes to water quantity and quality:

- Policy SG6: Town Centre Uses
- Policy TC3: Town Centre Allocations
- Policy DM2: Community Facilities
- Policy DM3: Education Provision
- Policy DM4: Sports Provision
- Policy DM5: Tourism, Leisure, Culture and Heritage
- Policy DM7: Agricultural Development and Diversification

- Policy DM11: Gypsies, Travellers, and Travelling Showpeople
- Policy DM13: Domestic development
- Policy DM14: Rural Workers' Housing
- Policy DM20: Promoting Sustainable Transport and Changing Travel Behaviour
- Policy DM21: Sustainable Access to Development

Likely Significant Effects predicted

4.6 The following policies are highlighted as having potential impact pathways to European sites and Likely Significant Effects cannot be ruled out:

- Policy SG2: Housing Delivery
- Policy SG3: Economic Growth Provision
- Policy SG4: Local Economic Areas
- Policy TC1: Town Centre Policy and Hierarchy
- Policy TC3: Town Centre Allocations
- Policy NC1: North Colchester and Severalls Strategic Economic Area
- Policy NC2: North Station Special Policy Area
- Policy NC3: North Colchester
- Policy SC1: South Colchester Allocations
- Policy SC2: Middlewick Ranges
- Policy EC1: Knowledge Gateway and University of Essex Strategic Economic Area
- Policy EC2: East Colchester / Hythe Special Policy Area
- Policy EC3: East Colchester
- Policy WC1: Stanway Strategic Economic Area
- Policy WC2: Stanway
- Policy WC3: Colchester Zoo
- Policy WC4: West Colchester
- Policy SS1: Abberton and Langenhoe
- Policy SS2: Boxted
- Policy SS3: Chappel and Wakes Colne
- Policy SS4: Copford
- Policy SS5: Eight Ash Green
- Policy SS6: Fordham

- Policy SS7: Great Horkesley
- Policy SS8: Great Tey
- Policy SS9: Langham
- Policy SS10: Layer de la Haye
- Policy SS11: Marks Tey
- Policy SS12a: West Mersea
- Policy SS12b: Coast Road, West Mersea
- Policy SS12c: Mersea Island Caravan Parks
- Policy SS13: Rowhedge
- Policy SS14: Tiptree
- Policy SS15: West Bergholt
- Policy OV1: Development in Other Villages
- Policy OV2: Countryside
- Policy DM6: Economic Development in Rural Areas and the Countryside

HRA Screening of Impacts

4.7 For some types of impacts, screening for likely significant effects has been determined on a proximity basis, using GIS data to determine the proximity of potential development locations to the European sites that are the subject of the assessment. However, there are many uncertainties associated with using set distances as there are very few standards available as a guide to how far impacts will travel. Therefore, during the screening stage a number of assumptions have been applied in relation to assessing the likely significant effects on European sites that may result from the plan, as described below.

Physical Damage and Loss

4.8 Any development resulting from the Local Plan would take place within the boundary of Colchester; therefore, only European sites within the boundary could be affected by physical damage or loss of habitat within the site boundaries. European sites identified within the Borough and were considered in more detail, included:

- Abberton Reservoir SPA and Ramsar
- Blackwater Estuary (Mid Essex Coast Phase 4) SPA and Ramsar
- Colne Estuary (Mid Essex Coast Phase 2) SPA and Ramsar
- Stour and Orwell Estuaries SPA and Ramsar

- Essex Estuaries SAC.

4.9 Habitat loss from development in areas outside of the European site boundaries may result in likely significant effects where that habitat contributes towards maintaining the interest feature for which the European site is designated. This includes land which may provide offsite movement corridors or feeding and sheltering habitat for mobile species such as bats, birds and fish. European sites susceptible to the indirect effects of habitat loss are restricted to those sites with qualifying species that rely on offsite habitat, including:

- Dengie (Mid-Essex Coast Phase 1) SPA and Ramsar
- Outer Thames Estuary SPA
- Hamford Water SPA, SAC and Ramsar
- Foulness (Mid-Essex Coast Phase 5) SPA and Ramsar
- Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA and Ramsar.

4.10 Natural England has advised that their recognised distance for the consideration of offsite functionally linked land is generally 2km, but for certain species, including most notably, golden plover and lapwing, a greater distance of 15km may be appropriate. This buffer has been considered for each of the European sites above, which are designated for supporting qualifying bird species.

Abberton Reservoir SPA and Ramsar

4.11 Abberton Reservoir is a large fresh water reservoir located approximately 9.7km south-west of Colchester. The site is a designated SSSI, SPA and Ramsar site principally for the internationally important populations of regularly occurring Annex 1 and migratory bird species. No site allocations are proposed within the boundary of the SPA and Ramsar.

4.12 The SPA and Ramsar site support transient bird species that also rely upon habitats located outside of the site boundaries. This includes species such as wigeon, gadwall, great crested grebe, pochard, golden plover and lapwing which may rely on offsite pastures and arable fields for feeding. **As a result, there is potential for the proposed site allocations to result in physical loss and damage to offsite habitats of importance to qualifying bird species.**

Blackwater Estuary (Mid Essex Coast Phase 4) SPA and Ramsar

4.13 The Blackwater Estuary SPA and Ramsar 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. No development

is proposed within the boundaries of the SPA and Ramsar site.

4.14 The Site is designated for a range of qualifying bird species including dark-bellied brent goose, hen harrier, golden plover and redshank, which may rely on offsite pastures and arable fields for feeding. **As a result, there is potential for the proposed site allocations to result in physical loss and damage to offsite habitats of importance to qualifying bird species.**

Colne Estuary (Mid Essex Coast Phase 2) SPA and Ramsar

4.15 The Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar boundaries are concurrent with the Essex Estuaries SAC within this part of Essex, located along the eastern boundary of Colchester Borough. The SPA and Ramsar site supports transient species that use offsite habitat. This includes species such as golden plover and dark-bellied Brent goose, which rely on offsite pastures and arable fields.

4.16 No development is proposed within the boundaries of the SPA and Ramsar site however the qualifying bird species may rely on offsite pastures and arable fields for feeding. **As a result, there is potential for the proposed site allocations to result in physical loss and damage to offsite habitats of importance to qualifying bird species.**

Stour and Orwell Estuaries SPA and Ramsar

4.17 A small part of the Stour and Orwell Estuaries SPA and Ramsar site is located in the north-east corner of the Colchester Borough boundary. No development is proposed within the boundaries of the SPA and Ramsar site.

4.18 The SPA and Ramsar site support transient bird species that also rely upon habitats located outside of the site boundaries. This includes species such as lapwing, dark-bellied brent goose and curlew, which may rely on offsite pastures and arable fields for feeding. **As a result, there is potential for the proposed site allocations to result in physical loss and damage to offsite habitats of importance to qualifying bird species.**

Essex Estuaries SAC

4.19 Essex Estuaries SAC is a large estuarine site in the south of Colchester Borough. The site comprises the major estuaries of the Colne, Blackwater, Crouch and Roach rivers. The SAC is designated primarily for supporting estuaries, mudflats and sandflats not covered by seawater at low tide, *salicornia* and other animals colonising mud and sand, spartina swards, Atlantic salt meadows, and Mediterranean and thermo-Atlantic halophilous scrubs. Therefore, impacts to

this SAC are restricted to direct damage or loss of these habitats within the SAC boundary.

4.20 No site allocations are proposed within the boundary of the SAC and **therefore no likely significant effect is predicted as a result of direct physical damage and loss either alone or in-combination with other plans and projects.**

Dengie (Mid-Essex Coast Phase 1) SPA and Ramsar

4.21 Dengie (Mid-Essex Coast Phase 1) SPA and Ramsar lies outside of the district boundary at 2.5km and therefore no likely significant effect is considered in relation to direct physical damage and loss.

4.22 However, as this SPA and Ramsar supports qualifying bird species, including dark-bellied brent goose, grey plover, hen harrier and knot, which rely on functional offsite habitat. There is potential for proposed development within the Local Plan, which lie within 2km of the European site to result in a likely significant affect. A 15km buffer was not applied for this site as did not list golden plover or lapwing as qualifying species.

4.23 Given the distance of the SPA and Ramsar site at 2.5km from the district, **no likely significant effect to the SPA and Ramsar is predicted as a result of on- or offsite physical damage and loss either alone or in-combination with other plans and projects.**

Outer Thames Estuary SPA

4.24 The Outer Thames Estuary SPA lies outside of the district boundary at 3.5km. The SPA's qualifying species, red throated diver, is primarily a marine species that remains offshore during the winter period. This species only returns to shore during the breeding season and relies on moorland habitat in Northern Scotland (mainland), Orkney and Outer Hebrides.

4.25 Given the distance of the SPA from the district at 3.5km and that this species is considered unlikely to rely on habitat present on land in Colchester, **no likely significant effect to the SPA is predicted as a result of physical damage and loss either alone or in-combination with other plans and projects.**

Hamford Water SPA and Ramsar

4.26 The Hamford Water SPA and Ramsar are situated along the eastern coast of Tendring District, 13.5km from Colchester Borough and therefore no likely significant effect is considered in relation to direct physical damage and loss.

4.27 The site supports transient species that use offsite habitat such as golden plover and dark-bellied brent goose, which may rely on offsite pastures and arable fields for foraging. Based on Natural England's recognised distances, a 15km buffer was applied to identify site allocations with potential to affect the SPA and Ramsar.

4.28 A review of proposed development within the Local Plan identified that there are no site allocations within 15km of this SPA and Ramsar. Therefore, **there is no potential for likely significant effects to occur in relation to physical damage and loss onsite and offsite either alone or in-combination.**

Hamford Water SAC

4.29 Hamford Water SAC is located 13.5km from Colchester Borough and is designated for supporting Fisher's estuarine moth. Natural England has advised that grassland habitats located outside of the SAC may also contribute to maintaining the population of the Fisher's estuarine moth. As a result, loss of habitat close to the SAC may result in likely significant effects on the SAC qualifying feature.

4.30 However, given the distance of the SAC at 13.5km from the Borough **no likely significant effect to the SAC is predicted as a result of physical damage and loss either alone or in-combination with other plans and projects.**

Foulness (Mid-Essex Coast Phase 5) SPA and Ramsar

4.31 The (Mid-Essex Coast Phase 5) SPA and Ramsar lies 14.7km from the Borough and therefore no likely significant effect is considered in relation to direct physical damage and loss.

4.32 The SPA and Ramsar is designated for supporting a range of wetland bird species, including grey plover, knot, bar-tailed godwit, redshank, avocet, dark-bellied Brent geese, dunlin, ringed plover, shelduck, oystercatcher and curlew. Based on Natural England's recognised distances, a 2km buffer was applied. Given the distance of the SPA and Ramsar site at 14.7km from the Borough, **no likely significant effect to the SPA and Ramsar is predicted as a result of direct physical damage and loss either alone or in-combination with other plans and projects.**

Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA and Ramsar.

4.33 Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA and Ramsar lies 15.9km from the Borough and therefore no likely significant effect is considered in relation to direct physical damage and loss.

4.34 The SPA and Ramsar is designated for supporting a wintering waterbirds, principally dark-bellied brent goose. Based on Natural England's recognised distances, a 2km buffer was applied. Given the distance of the SPA and Ramsar site at 15.9km from the Borough, **no likely significant effect to the SPA and Ramsar is predicted as a result of direct physical damage and loss either alone or in-combination with other plans and projects.**

Non-Physical Disturbance

4.35 Noise and vibration effects, e.g. during the construction of new housing or employment development, are most likely to disturb bird species and are thus a key consideration with respect to European sites where these species are the qualifying features. Artificial lighting at night (e.g. from streetlamps, flood lighting and security lights) has the potential to affect species where it occurs in close proximity to key habitat areas, such as key roosting sites of SPA birds.

4.36 It has been assumed that the effects of noise, vibration and light are most likely to be significant within a distance of 500 metres. There is also evidence of 300 metres being used as a distance up to which certain bird species can be disturbed by the effects of noise; however, it has been assumed (on a precautionary basis) that the effects of noise, vibration and light pollution are capable of causing an adverse effect if development takes place within 500 metres of a European site with qualifying features sensitive to these disturbances. European sites susceptible to non-physical disturbance from proposed development within the Borough are restricted to European sites, which lie in or within 500m of the Borough, including Abberton Reservoir SPA and Ramsar, Blackwater Estuary (Mid Essex Coast Phase 4) SPA and Ramsar, Colne Estuary (Mid Essex Coast Phase 2) SPA and Ramsar, Stour and Orwell Estuaries SPA and Ramsar and Essex Estuaries SAC.

4.37 All other European sites are located over 500m from the Borough boundary at the closest point and/or do not support mobile species likely to be significantly affected as a result of non-physical disturbance.

Abberton Reservoir SPA and Ramsar

4.38 The SPA and Ramsar site support qualifying wetland bird species, which are susceptible to disturbance from noise, vibration and increased lighting. A review of site allocations identified no proposed allocations with 500m of the SPA and Ramsar and therefore, **no likely significant effect to the SPA and Ramsar is predicted as a result of non-physical disturbance either alone or in-combination with other plans and projects.**

Blackwater Estuary (Mid Essex Coast Phase 4) SPA and Ramsar

4.39 The SPA and Ramsar site support qualifying wetland bird species, which are susceptible to disturbance from noise, vibration and increased lighting.

4.40 A review of site allocations identified that there are no allocations in proximity to the SPA/Ramsar with potential to be affected by non-physical disturbance.

4.41 There is therefore no potential for likely significant effects to occur in relation to non-physical disturbance either alone or in-combination.

Colne Estuary (Mid Essex Coast Phase 2) SPA and Ramsar

4.42 The SPA and Ramsar site support qualifying wetland bird species, which are susceptible to disturbance from noise, vibration and increased lighting.

4.43 A review of site allocations identified that there are no allocations in proximity to the SPA/Ramsar with potential to be affected by non-physical disturbance.

4.44 There is therefore no potential for likely significant effects to occur in relation to non-physical disturbance either alone or in-combination.

Stour and Orwell Estuaries SPA and Ramsar

4.45 The SPA and Ramsar site support qualifying wetland bird species, which are susceptible to disturbance from noise, vibration and increased lighting. A review of site allocations identified no proposed allocations with 500m of the SPA and Ramsar and therefore, **no likely significant effect to the SPA and Ramsar are predicted as a result of non-physical disturbance either alone or in-combination with other plans and projects.**

Essex Estuaries SAC

4.46 Although Essex Estuaries SAC is located within the Borough its qualifying features are not susceptible to non-physical disturbance and therefore, **no likely significant effect to the SAC are predicted as a result of non-physical disturbance either alone or in-combination with other plans and projects.**

Air Pollution

4.47 Air pollution is most likely to affect European sites where plant, soil and water habitats are the qualifying features, but

some qualifying animal species may also be affected, either directly or indirectly, by deterioration in habitat as a result of air pollution. Deposition of pollutants to the ground and vegetation can alter the characteristics of the soil, affecting the pH and nitrogen levels, which can then affect plant health, productivity and species composition.

4.48 In terms of vehicle traffic, nitrogen oxides (NO_x, i.e. NO and NO₂) are considered to be the key pollutants. Deposition of nitrogen compounds may lead to both soil and freshwater acidification, and NO_x can cause eutrophication of soils and water.

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

4.50 The DMRB Guidance for the assessment of local air quality in relation to highways developments provides criteria that should be applied at the Screening Stage of an assessment of a plan or project, to ascertain whether there are likely to be significant impacts associated with routes or corridors. Based on the DMRB guidance, affected roads which should be assessed are those where:

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

4.51 Where significant increases in traffic are possible on roads within 200m of European sites, traffic forecast data may be needed to determine if increases in vehicle traffic are likely to be significant. In line with the Wealden judgment²⁵, the traffic growth considered by the HRA should be based on the effects of development provided for by the Plan in combination with other drivers of growth such as development proposed in neighbouring districts and demographic change.

4.52 It has been assumed that only those roads forming part of the primary road network (motorways and 'A' roads) are

²⁵ Wealden v SSCLG [2017] EWHC 351 (Admin)

likely to experience any significant increases in vehicle traffic as a result of development (i.e. greater than 1,000 AADT). As such, where a site is within 200m of only minor roads, no significant effect from traffic-related air pollution is considered to be the likely outcome.

4.53 The key commuting corridor for new housing and employment development will likely include A12, A120, A133, A134, A137, A1124 and A1232 which are shown in **Figure 2** in **Appendix A**. European sites within 20km of Colchester Borough that are within 200m of strategic roads are limited to the Stour and Orwell Estuaries SPA and Ramsar site, which is situated within 200m of the A137 and A120.

4.54 All other European sites were located further than 200m from the strategic road network for the district and therefore were screened out of the assessment.

Stour and Orwell Estuaries SPA and Ramsar

4.55 Small areas of the Stour and Orwell Estuaries SPA and Ramsar site are situated within 200m of a strategic road, including the A137 and A120. A total proportion of 0.71% of the SPA and 0.78% of the Ramsar within 200m of these strategic roads. Motorways and A roads within 200m of a sensitive receptor have potential to adversely affect the habitat composition and soil chemistry of the site through deposition of airborne pollutants, particularly Nitrogen. Increased air pollution in proximity to the SPA and Ramsar site may result in the degradation of habitat types upon which the qualifying features depend. Coastal dune habitat used by breeding little terns was highlighted by Natural England's SIP as a key habitat vulnerable to nitrogen deposition.

4.56 Habitats present within 200m of the A137 and A120 include mudflats, saltmarsh and neutral grassland.

4.57 Mudflats, which comprised the majority of habitat within 200m, are not considered vulnerable to the effects of air pollution at these locations due to twice daily flushing by tidal waters. In addition, the effect of air pollution would not expect to noticeably affect the feeding resource of benthic invertebrates upon which SPA birds depend.

4.58 Neutral grassland is considered vulnerable to air pollution but the impacts on this habitat from increased air pollution are unlikely to noticeably and would not affect the suitability of the habitat as a feeding resource for SPA birds which often benefit from high soil productivity.

4.59 The APIS website indicates that the current nitrogen deposition levels at the site are below critical load ranges of 20-30 N/ha/year for salt marsh. Small areas of salt marsh occur within 200m of the roads comprising c3ha in total, the majority of which is located to the north of the A120 at Harwich Port. The corresponding SSSI unit 9 is reported as being in

favourable condition in this area and given the existing and established presence of extensive industrial development at this location, and the small area of saltmarsh within 200m of the road, **no likely significant effects are predicted as a result of air pollution on the Stour and Orwell Estuaries SPA and Ramsar site either alone or in-combination.**

Recreation

4.60 Recreational activities and human presence can result in significant effects on European sites as a result of erosion and trampling, associated impacts such as fire and vandalism or disturbance to sensitive features, such as birds through both terrestrial and water-based forms of recreation.

4.61 European sites with qualifying bird species are likely to be particularly susceptible to recreational disturbances from walking, dog walking, angling, illegal use of off-road vehicles and motorbikes, wildfowling, and water sports. An increase in recreational pressure from development therefore has the potential to disturb bird populations of SPA and Ramsar sites as a result of both terrestrial and water-based recreation. In addition, recreation can physically damage habitat as a result of trampling and also through erosion associated with boat wash and terrestrial activities such as use of vehicles.

4.62 The Local Plan will result in housing growth, and associated population increase within the borough. Where increases in population are likely to result in significant increases in recreation at a European site, either alone or in-combination, the potential for likely significant effects will require assessment.

4.63 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. Particularly in relation to coastal European sites, which have the potential to draw large number of visitors from areas much further afield.

4.64 As part of the Essex Coast Recreational disturbance Avoidance and Mitigation Strategy (RAMS) initiative for which Colchester Borough Council are involved in, visitor surveys were undertaken during the 2010-2013 and the winter of 2017/18 to determine specific ZOI for all European sites along the Essex coast. The ZOI have been agreed with Natural England in respect of the following European sites and have been applied in this assessment:

- Blackwater SPA and Ramsar – 22km
- Colne Estuary SPA and Ramsar – 9.7km
- Hamford Water SPA and Ramsar – 8km
- Hamford Water SAC – 8km
- Stour and Orwell Estuaries SPA and Ramsar – 13km
- Dengie SPA and Ramsar – 20.8
- Crouch and Roach Estuaries Ramsar and SPA – 4.5km
- Foulness Estuary SPA and Ramsar – 13km

4.65 The ZOI of Hamford Water SAC, SPA and Ramsar, Crouch and Roach Estuaries Ramsar and SPA and Foulness Estuary SPA and Ramsar does not extend into Colchester Borough. **These European sites were therefore screened out of the assessment.**

4.66 Dengie SPA and Ramsar have a ZOI of 20.8km, which extends into Colchester Borough. As a result, in line with the precautionary principle of HRA, **these European sites were screened into the assessment and will need to be assessed for likely significant effects in relation to recreational pressure.**

4.67 All other European sites above have ZOIs which extend into Colchester Borough and **therefore need to be assessed for likely significant effects in relation to increased recreational pressure.**

4.68 Essex Estuaries SAC lies within several SPA and Ramsar sites including Colne Estuary SPA and Ramsar (9.7km), Blackwater Estuary SPA and Ramsar (22km), Dengie SPA and Ramsar (20km), Crouch and Roach Estuaries SPA and Ramsar (4.1km) and Foulness Estuary SPA and Ramsar (13km). The respective ZOIs for each SPA and Ramsar have been applied to the Essex Estuaries SAC. More detail is provided in the Screening Assessment below.

4.69 Abberton Reservoir SPA and Ramsar lies within the Borough boundary and whilst Natural England has confirmed that this site can be screened out in terms of recreational disturbance due to the distance and success of existing visitor management regimes, it has been included for assessment for **likely significant effects in relation to increased recreational pressure in accordance with the precautionary principle of HRA and recent case law which prevents reliance on existing management regimes as an avoidance and mitigation measure at the screening stage.**

4.70 Due to the proximity of the Outer Thames Estuary SPA, there is potential for increased recreation from water-based activities to impact the qualifying bird species of the SPA, which are dependent on the marine habitat of the SPA and

this site has **therefore been screened into the assessment for consideration of recreational impacts.**

Essex Estuaries SAC

4.71 The SAC encompasses the Colne Estuary which lies between the southern parts of Colchester Borough and Tendring District. The SAC is subject to a range of land and water-based activities, including walking, fishing and water sports. Negative effects associated with these activities are primarily related to disturbance associated with the qualifying bird species of the Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar site and the Blackwater SPA and Ramsar, two sites which are concurrent with the SAC over much of this area. However, the coastal and estuarine habitats of the SAC may also be affected by factors associated with human access such as off-road vehicle use, erosion, fire, trampling and vandalism, but the nature of the habitat types present is such that their susceptibility to recreational disturbance is limited, at least to some extent, by their inaccessible nature. In addition, the presence of permissive footpaths and well-structured public access is likely to direct people away from sensitive habitat types within the SAC, such as Atlantic salt meadows.

4.72 The SAC is also sensitive to the effects of water-based recreation, particularly through the erosion of saltmarsh habitat associated with the wash of motorised watercraft such as jet skis. This was raised as a particular concern by Natural England during ongoing consultation as part of this assessment.

4.73 The SAC is comprised of a series of sites, including Colne Estuary National Nature Reserve (NNR), Colne Point Nature Reserve and Colne Estuary SSSI, which are managed by Natural England and the Essex Wildlife Trust. Management measures in place at the NNR and Nature Reserve, which are likely to minimise disturbance and damage to the SAC, include the use of restricted access to permit holders at Brightlingsea Marshes, Essex Wildlife Trust members only at Colne Point Nature Reserve, and prohibited access to dogs at Colne Point Nature Reserve. These measures are likely to contribute towards reducing the impacts of recreational disturbance but it is unclear whether these measures are actively enforced.

4.74 As part of the Essex Coast RAMS, specific visitor surveys were undertaken to inform the ZOI of the SAC. Essex Estuaries SAC overlaps with several SPA and Ramsar sites including Colne Estuary SPA and Ramsar (9.7km), Blackwater Estuary SPA and Ramsar (22km), Dengie SPA and Ramsar (20km), Crouch and Roach Estuaries SPA and Ramsar (4.1km) and Foulness Estuary SPA and Ramsar (13km). The respective ZOIs for each SPA and Ramsar have been applied to the SAC. These ZOIs encompass much of Colchester and therefore population increases associated with housing growth

have the potential to increase visitor pressures at the Essex Estuaries SAC.

4.75 A review of other plans and projects and associated HRA findings, identified that the HRAs of the Braintree Section 2 Local Plan and Tendring Section 2 Local Plan each identified the potential for Likely Significant Effects on the Essex Estuaries SAC as a result of in-combination effects with one another, and with the Strategic Section 1 Local Plan.

4.76 Despite the limited susceptibility of several of the SAC habitats to recreational pressure, there is a level of uncertainty as to whether Likely Significant Effects will occur as a result of increased recreational pressure associated with proposed development within the Local Plan. **Therefore, in line with a precautionary approach, further assessment is required at the Appropriate Assessment stage to determine whether increased recreational pressures would be likely to adversely affect the integrity of the SAC. Further dialogue with Natural England will be required at the Appropriate Assessment stage to develop the necessary avoidance and mitigation strategy and provide safeguards to ensure no adverse effect on integrity, either alone or in-combination.**

Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar

4.77 The SPA and Ramsar site are subject to the same land and water-based activities as Essex Estuaries SAC. These activities mentioned above are considered a key vulnerability to qualifying bird species of the SPA and Ramsar site as a result of direct disturbance to qualifying bird species and damage to features of importance to these species, such as feeding and roosting sites.

4.78 Damage from trampling is also considered a potential threat to qualifying plant species of the Ramsar site. However, the likelihood of this occurring is limited to some extent by a lack of accessibility to key habitats, such as saltmarsh, as a result of difficult terrain and frequent flooding. The provision of permissive footpaths adjacent to pastures and agricultural fields was identified using OS mapping and aerial photography, and it is likely that the footpaths would limit disturbance to small areas of the European site.

4.79 The site is also sensitive to the effects of water-based recreation, particularly through direct disturbance to roosting and feeding bird species, and via the erosion of saltmarsh habitat upon which they depend as a result of the wash of motorised watercraft such as jet skis. This was raised as a concern for the Colne Estuary SPA/Ramsar by Natural England during ongoing consultation as part of this assessment.

4.80 Measures have been implemented by Natural England and the Essex Wildlife Trust who manage the Colne Estuary NNR and Colne Point Nature Reserve, which lie within the SPA and Ramsar site, to restrict access to permit holders only at Brightlingsea Marshes and Essex Wildlife Trust members only at Colne Point Nature Reserve. Dog walking is also prohibited at Colne Point Nature Reserve, which supports an important breeding site for little terns. These measures are likely to contribute towards reducing the impacts of recreational disturbance on the SPA/Ramsar but it is unclear whether these measures are actively enforced and to what extent they are effective.

4.81 Following targeted visitor surveys undertaken as part of the Essex Coast RAMS in the winter of 2017/18, a ZOI of 9.7km was identified and has been applied in this assessment.

4.82 A review of site allocations within 9.7km of the SPA and Ramsar identified the following residential site allocations, which have potential to contribute to increased recreational pressure in the European sites.

Table 4.1: Site Allocations within 9.7km of the Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar

Site Allocation	No. of Housing Units	Distance from European Site (km)
SS12A (Dawes Lane)	100	1.0km
SS12A (Brierley Paddocks)	100	1.4km
SS1 (Land to the west of Peldon Road)	50	1.8km
SS1 (Land to the east of Peldon Road)	5	1.8km
SS13 (Rowhedge Business Centre)	40	2.2km
SC2 (Middlewick Ranges)	1000	3.3km
EC2 (East Colchester / Hythe Special Policy Area)	TBC	3.7km
EC3 (Land at Port Lane)	130	4.6km
SS10 (Laver de la Haye)	35	4.7km
EC3 (Barrington Road/Bourne Road vacant site)	28	4.9km
EC3 (Magdalen Street sites)	TBC	5.3km

Site Allocation	No. of Housing Units	Distance from European Site (km)
EC3 (East Bay Mill)	22	5.6km
SC1 (South of Berechurch Hall Road)	150	5.6km
TC3 (Land at Britannia Car Park)	150	6.0km
TC3 (Part of St Runwalds Car park)	40	6.0km
SC1 (Land at Gosbecks Phase 2)	150	6.5km
WC4 (Essex County Hospital site, Lexden Road)	120	6.7km
NC2 (North Station Special Policy Area)	TBC	6.8km
WC4 (Land at Irvine Road)	8	7.1km
WC2 (Land off Dyers Road including Fiveways Fruit Farm)	490	8.4km
NC1 (Residential Allocation)	300	8.6km
NC3 (Land at Braiswick)	70	9.0km
WC2 (Land to the West of Lakelands)	150	9.6km
WC2 (Land between Tollgate West and London Road (former Sainsbury's Site))	200	9.7km
SS15 (West Bergholt)	120	10.6km

4.83 A significant number of housing units are proposed within the ZOI of the SPA, which will result in increased levels of recreation in the local area. This has potential to result in increased recreational pressure on the SPA as a result of proposed development within the Local Plan and will require appropriate avoidance and mitigation measures to ensure no adverse effect on the integrity of the SPA.

4.84 There is potential for likely significant effects to occur in relation to impacts from recreation and therefore requires further consideration at appropriate assessment.

Stour and Orwell Estuaries SPA and Ramsar

4.85 The SPA and Ramsar is designated for its large waterbird assemblage, as well as breeding and overwintering birds, which are vulnerable to disturbance and damage to features of importance, such as feeding and roosting sites, from a range of land and water-based activities. These include dog walking, walking, watersports, fishing, wildfowling and military training. In addition to this, there is potential for damage to qualifying plant populations of the Ramsar site to occur as a result of trampling.

4.86 A ZOI of 13km was identified and has been applied in this assessment. The 13km ZOI came from a report for the Suffolk Coast RAMS by Footprint Ecology, which looked at visitors to the northern shore. NE requested this ZOI be used, despite the 2010-13 and 2017/18 surveys carried out by CBC suggesting a lower ZOI.

4.87 A review of site allocations within 13km of the SPA and Ramsar identified the following residential site allocations, which have potential to contribute to increased recreational pressure in the European sites. This is detailed in **Table 4.2** below.

Table 4.2: Site Allocations within 13km of the Stour and Orwell Estuaries SPA and Ramsar

Site Allocation	No. of Housing Units	Distance from European Site (km)
SS9 (School Road Langham)	70	5.1km
SS9 (Wick Road Langham)	10	5.2km
SS2 (Hill Farm, Boxted)	TBC	7.2km
Tendring / Colchester Borders Garden Community	2500	8.4km
NC1 (Residential Allocation)	300	8.4km
SS7 (Great Horkeley Manor)	80	9.9km
EC2 (East Colchester / Hythe Special Policy Area)	TBC	10.0km
NC2 (North Station Special Policy Area)	TBC	10.3km
EC3 (East Bay Mill)	22	10.3km
SS7 (School Lane)	13	10.3km

Site Allocation	No. of Housing Units	Distance from European Site (km)
EC3 (Land at Port Lane)	130	10.5km
EC3 (Magdalen Street sites)	TBC	10.7km
TC3 (Land at Britannia Car Park)	150	10.9km
TC3 (Part of St Runwalds Car park)	40	11.0km
EC3 (Barrington Road/Bourne Road vacant site)	28	11.2km
NC3 (Land at Braiswick)	70	11.3km
SC2 (Middlewick Ranges)	1000	11.5km
WC4 (Essex County Hospital site, Lexden Road)	120	11.8km
SS13 (Rowhedge Business Centre)	40	12.2km

4.88 A significant number of housing units are proposed within the ZOI of the SPA and Ramsar which will result in increased levels of recreation in the local area. This has potential to result in increased recreational pressure on the SPA and Ramsar as a result of proposed development within the Local Plan and will require appropriate avoidance and mitigation measures to ensure no adverse effect on the integrity of the SPA and Ramsar.

4.89 There is potential for likely significant effects to occur in relation to impacts from recreation and therefore requires further consideration at appropriate assessment.

Abberton Reservoir SPA and Ramsar

4.90 The SPA supports a number of overwintering waterbird species, which are vulnerable to disturbance and damage to features of importance, such as feeding and roosting sites, from a range of land and air-based activities. This includes walking, bird watching, occasional trespassing and low-flying civilian and military aircraft. It should be noted that dog walking, which typically represents one of the most significant disturbance factors to sites designated for birds, is not permitted within the reserve.

4.91 The visitor surveys completed by Colchester Borough Council reported that 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).

4.92 A review of site allocations within 16km of the SPA and Ramsar identified that all residential site allocations are within 16km. Therefore, all residential allocations have potential to contribute to increased recreational pressure in the European sites. This is detailed in **Table 4.3** below.

Table 4.3: Site Allocations within 16km of Abberton Reservoir SPA and Ramsar

Site Allocation	No. of Housing Units	Distance from European Site (km)
SS1 (Land to the west of Peldon Road)	50	0.6km
SS1 (Land to the east of Peldon Road)	5	0.8km
SS10 (Layer de la Haye)	35	1.0km
SC1 (South of Berechurch Hall Road)	150	1.9km
SC1 (Land at Gosbecks Phase 2)	150	2.7km
SC2 (Middlewick Ranges)	1000	2.8km
SS14 (Tiptree)	600	3.2km
SS13 (Rowhedge Business Centre)	40	3.3km
WC2 (Land off Dyers Road including Fiveways Fruit Farm)	490	4.1km
WC4 (Land at Irvine Road)	8	4.2km
EC3 (Barrington Road/Bourne Road vacant site)	28	4.3km
SS12B (Coast Road, West Mersea)	TBC	4.4km
EC2 (East Colchester / Hythe Special Policy Area)	TBC	4.8km
EC3 (Land at Port Lane)	130	4.8km
WC4 (Essex County Hospital site, Lexden Road)	120	4.9km

Site Allocation	No. of Housing Units	Distance from European Site (km)
EC3 (Magdalen Street sites)	TBC	5.0km
TC3 (Land at Britannia Car Park)	150	5.1km
SS12A (Dawes Lane)	100	5.2km
TC3 (Part of St Runwalds Car park)	40	5.3km
EC3 (East Bay Mill)	22	5.5km
WC2 (Land to the West of Lakelands)	150	5.5km
WC2 (Land between Tollgate West and London Road (former Sainsbury's Site))	200	5.6km
NC2 (North Station Special Policy Area)	TBC	5.8km
SS12A (Brierley Paddocks)	100	5.8km
Tendring / Colchester Borders Garden Community	2500	6.0km
WC2 (Land to the North of London Road)	630	6.1km
WC2 (Land at Chitts Hill)	100	6.2km
SS4 (West of Hall Road)	50	6.5km
SS4 (East of Queensberry Avenue)	70	6.7km
SS5 (Eight Ash Green)	150	6.8km
NC3 (Land at Braiswick)	70	7.3km
SS15 (West Bergholt)	120	7.5km
NC1 (Residential Allocation)	300	8.7km
SS7 (Great Horkesley Manor)	80	9.2km
SS8 (Land on Brook Road)	10	9.6km
SS8 (Land off Greenfield Drive)	30	10.4km
SS6 (Fordham)	20	10.5km
SS7 (School Lane)	13	10.7km
SS3 (Chappel and Wakes Colne)	30	11.3km
SS9 (Wick Road)	10	11.7km

Site Allocation	No. of Housing Units	Distance from European Site (km)
SS9 (School Road)	70	12.2km
SS2 (Hill Farm, Boxted)	36	12.5km
Total	8107+	-

4.93 A significant number of housing units are proposed within the ZOI of the SPA and Ramsar, which will result in increased levels of recreation in the local area. This has potential to result in increased recreational pressure on the SPA and Ramsar as a result of proposed development within the Local Plan and will require appropriate avoidance and mitigation measures to ensure no adverse effect on the integrity of the SPA and Ramsar.

4.94 There is potential for likely significant effects to occur in relation to impacts from recreation and therefore requires further consideration at appropriate assessment.

Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar site

4.95 The SPA and Ramsar site supports large numbers of waterbirds, as well as breeding and overwintering birds, which are vulnerable to disturbance and damage to features of importance, such as feeding and roosting sites, from a range of land and water-based activities. These include dog walking, walking, watersports, fishing, wildfowling and military training. In addition to this, there is potential for damage to saltmarsh habitat which is a qualifying feature of the Ramsar site as a result of trampling and associated recreational impacts.

4.96 Visitor survey work undertaken as part of the Essex Coast RAMS has recommended a 22km ZOI for the site. This encompasses all of Colchester borough and is therefore likely to be affected by increased recreational pressure associated with increases in visitor pressures at the SPA/Ramsar. This is detailed in **Table 4.4** below.

Table 4.4: Site Allocations within 22km of Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar site

Site Allocation	No. of Housing Units	Distance from European Site (km)
SS12B (Coast Road, West Mersea)	TBC	Within SPA/Ramsar
SS12A (Dawes Lane)	100	0.9km

Site Allocation	No. of Housing Units	Distance from European Site (km)
SS12A (Brierley Paddocks)	100	1.3km
SS1 (Land to the west of Peldon Road)	50	2.7km
SS1 (Land to the east of Peldon Road)	5	2.8km
SS10 (Layer de la Haye)	35	4.9km
SS14 (Tiptree)	600	5.5km
SS13 (Rowhedge Business Centre)	40	6.0km
SC1 (South of Berechurch Hall Road)	150	6.1km
SC2 (Middlewick Ranges)	1000	6.2km
SC1 (Land at Gosbecks Phase 2)	150	7.0km
EC2 (East Colchester / Hythe Special Policy Area)	TBC	7.7km
EC3 (Barrington Road/Bourne Road vacant site)	28	8.0km
WC2 (Land off Dyers Road including Fiveways Fruit Farm)	490	8.3km
WC4 (Land at Irvine Road)	8	8.3km
EC3 (Land at Port Lane)	130	8.4km
EC3 (Magdalen Street sites)	TBC	8.8km
TC3 (Land at Britannia Car Park)	150	8.9km
WC4 (Essex County Hospital site, Lexden Road)	120	9.0km
Tendring / Colchester Borders Garden Community	2500	9.1km
EC3 (East Bay Mill)	22	9.2km
TC3 (Part of St Runwalds Car park)	40	9.3km
WC2 (Land to the West of Lakelands)	150	9.6km
NC2 (North Station Special Policy Area)	TBC	9.8km

Site Allocation	No. of Housing Units	Distance from European Site (km)
WC2 (Land between Tollgate West and London Road (former Sainsbury's Site))	200	9.8km
WC2 (Land to the North of London Road)	630	10.2km
SS4 (West of Hall Road)	50	10.4km
WC2 (Land at Chitts Hill)	100	10.5km
SS4 (East of Queensberry Avenue)	70	10.6km
SS5 (Eight Ash Green)	150	10.9km
NC3 (Land at Braiswick)	70	11.4km
NC1 (Residential Allocation)	300	12.6km
SS15 (West Bergholt)	120	12.6km
SS8 (Land on Brook Road)	10	13.1km
SS7 (Great Horkesley Manor)	80	13.3km
SS8 (Land off Greenfield Drive)	30	13.6km
SS6 (Fordham)	20	14.7km
SS7 (School Lane)	13	14.8km
SS9 (Wick Road)	10	15.4km
SS3 (Chappel and Wakes Colne)	30	15.9km
SS9 (School Road)	70	15.9km
SS2 (Hill Farm, Boxted)	36	16.4km
Total	8107+	-

4.97 Specific mitigation and appropriate policy safeguards are likely to be required to provide certainty that mitigation can prevent impacts to the integrity of the SPA and Ramsar.

4.98 Housing and associated population growth within the south of Colchester in particular as a result of the Local Plan is likely to result in significant effects on the Blackwater Estuary SPA and Ramsar as a result of recreational pressure.

4.99 There is potential for likely significant effects to occur in relation to impacts from recreation and therefore requires further consideration at appropriate assessment.

Outer Thames Estuary SPA

4.100 Outer Thames Estuary is designated for qualifying red-throated diver, which are reliant on marine habitats to forage over the winter. Although, red-throated divers are highly mobile during the winter and are able to use a range of marine habitats, this species tends to be faithful to their foraging sites and show a strong stress response to changes. Due to these factors there is potential for this species to be affected by increased water-based recreational activities within the SPA as a result of increased housing within the Borough.

4.101 There is potential for likely significant effects from increased recreation in-combination with other plans and policies to occur and therefore requires further consideration at appropriate assessment.

Water Quantity and Quality

4.102 An increase in demand for water abstraction and treatment resulting from the growth proposed in the Plan could result in changes in hydrology at European sites. Depending on the qualifying features and particular vulnerabilities of the European sites, this could result in likely significant effects; for example, due to changes in environmental or biotic conditions, water chemistry and the extent and distribution of preferred habitat conditions. To fully understand the potential impacts of proposed development on European sites a review of relevant Water Cycle Studies (WCS) and liaison with the Environment Agency and relevant water companies will be required.

Abberton Reservoir SPA and Ramsar

4.103 The SPA and Ramsar site support water bird assemblages, which are dependent on water quantity and quality. Any changes in water quantity and quality therefore have the potential to significantly impact the European sites.

4.104 There is no direct source-path-receptor model for the transmission of factors which could affect water quality between this site and development specified within the Local Plan, therefore no changes in water quality are predicted.

4.105 The HRA of the Braintree Site Allocations and Development Management Plan noted that Abberton Reservoir was experiencing 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. Crucially, the Abberton Reservoir does not supply water to housing or businesses in the Borough.

4.106 The HRA²⁶ noted that Essex and Suffolk Water (ESW) 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 Study¹⁸, and the ESW Water Resource Management Plan¹⁹. The capacity of Abberton Reservoir has been increased by 58%²⁰. 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 2040²⁷. The lowering of water levels at Abberton Reservoir is not listed as a key vulnerability or factor currently affecting the site, and given the enhanced reservoir, which has been subject to extensive study, this issue does not require further consideration in this HRA Screening assessment.

4.107 No likely significant effect to the SPA and Ramsar are predicted as a result changes in water quantity and quality either alone or in-combination with other plans and projects.

Essex Estuaries SAC

4.108 The SAC supports tidal and estuarine habitats, including mudflats, sandflats, Atlantic salt meadows and estuarine habitat. These habitats are dependent on water and are therefore likely to be vulnerable to changes in water quantity and quality. An increase in demand for water and water treatment from development within the Local Plan therefore has the potential to significantly affect qualifying features of the SAC.

4.109 The most recent Colchester Water Cycle Study²⁸ (WCS) was completed in 2016 and forms part of the evidence base for the Local Plan. The WCS found that only Langham Water Recycling Centre (WRC), which discharges into the River Stour, does not have sufficient capacity to accept all growth within the plan period. All other WRCs serving the Borough have sufficient capacity to accommodate additional wastewater from the proposed increase in development. The WCS concluded that, allowing for the planned resource management of Anglian Water Services South Essex Resource Zone, Colchester would have adequate water supply to cater for growth over the plan period.

4.110 No Likely Significant Effects to Essex Estuaries SAC are predicted in relation to water quantity and quality either alone or in-combination with other plans or projects

²⁶ LUC (2018), HRA Screening Report for Braintree District Local Plan

²⁷ Essex and Suffolk Water (October 2014) Final Water Resources Management Plan 2014

²⁸ AECOM (2016). The Colchester Borough Council Water Cycle Study 2016

Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar

4.111 The Colne Estuary SPA and Ramsar site support breeding little tern, overwintering water birds, estuarine habitats including saltmarsh, and scarce plants and invertebrates. These qualifying features are dependent on water and are therefore likely to be vulnerable to changes in water quantity and quality. An increase in demand for water and water treatment from development within the Local Plan would have potential to result in significant effects on the SPA and Ramsar site.

4.112 The Haven Gateway Water Cycle Study (HGWCS) study found that the sub-region water supply zone supported a number of water abstraction licences of which some were not fully utilised with a surplus of 66.5Ml/d identified when the licensed abstraction volume (CAMS) was compared against the average volume abstracted. The Lower Colne forms part of the SAC. However, the study confirmed that there are no known issues in relation to water capacity and supply at the abstraction site at this location. As a result, the Local Plan will not result in Likely Significant Effects on the SPA or Ramsar as a result of changes in water quantity.

4.113 The most recent Colchester Water Cycle Study²⁹ was completed in 2016 and found that only Langham Water Recycling Centre (WRC), which discharges into the River Stour, does not have sufficient capacity to accept all growth within the plan period. All other WRCs serving the Borough have sufficient capacity to accommodate additional wastewater in terms of water quality and quantity from the proposed increase in development.

4.114 No Likely Significant Effects to Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar are predicted in relation to water quantity and quality either alone or in combination with other plans or projects

Stour and Orwell Estuaries SPA and Ramsar site

4.115 The SPA and Ramsar site support qualifying bird species, which are reliant on coastal and estuarine habitat. These habitats are water-dependent and are susceptible to changes in water quantity and quality. Development therefore has the potential indirectly to affect the integrity of the European sites by reducing the extent or quality of feeding resources or by changing the environmental conditions upon which habitats and species depend.

4.116 The most recent Colchester Water Cycle Study³⁰ was completed in 2016 and found that Langham Water Recycling Centre (WRC), which discharges into the River Stour, does

not have sufficient capacity to accept all growth within the plan period. Allocations within the following policies flow to Langham WRC:

- Policy SS2 (Boxted)
- Policy SS9 (Langham)

4.117 The WCS concluded that solutions are required in order to accommodate the growth to ensure that the increased wastewater flow discharged does not impact on the current quality of the receiving watercourses, their associated ecological sites and also to ensure that the watercourses can still meet with legislative requirements.

4.118 In summary, the increased demand for water treatment across Colchester Borough, particularly as a result of housing and employment development at Langham and Boxted, has the potential to result in Likely Significant Effects on the Stour and Orwell Estuaries SPA and Ramsar site as a result of changes in water quality, and therefore further consideration is required at the Appropriate Assessment stage to determine whether the Local Plan will result in adverse effects on integrity, either alone or in combination.

Blackwater Estuary SPA and Ramsar

4.119 The SPA and Ramsar site support water birds, habitats and invertebrate species which are dependent on water levels and quality. Any changes in water quantity and quality therefore have the potential to significantly impact these European sites.

4.120 The most recent Colchester Water Cycle Study was completed in 2016 and found that only Langham Water Recycling Centre (WRC), which discharges into the River Stour, does not have sufficient capacity to accept all growth within the plan period. All other WRCs serving the Borough have sufficient capacity to accommodate additional wastewater treatment in terms of quantity and quality from the proposed increase in development.

4.121 Due to this and the absence of a source-path-receptor in terms of impacts associated with water quality and quantity it is unlikely that Likely Significant Effects will occur in relation to water related issues. In addition to this no WRC discharging water into or near to the SPA and Ramsar site exceeded or is predicted to exceed consented discharge levels.

4.122 No Likely Significant Effects to Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar site are

²⁹ AECOM (2016). The Colchester Borough Council Water Cycle Study 2016

³⁰ AECOM (2016). The Colchester Borough Council Water Cycle Study 2016

predicted in relation to water quantity and quality either alone or in-combination with other plans or projects.

Hamford Water SAC, SPA and Ramsar / Outer Thames Estuary SPA, Foulness (Mid-Essex Coast Phase 5) SPA and Ramsar, Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA and Ramsar and Dengie (Mid-Essex Coast Phase 1) SPA and Ramsar

4.123 These European sites support qualifying features, which are dependent on water resources along the coastline. Due to the lack of hydrological connectivity between these European and the Borough, **no likely significant effect to these**

Table 4.5: Summary of Screening Conclusions

European Sites are predicted as a result changes in water quantity and quality either alone or in-combination with other plans and projects.

Summary of Screening Assessment

4.124 Table 4.5 below summarises the Screening conclusions reached in this HRA. Impact types for which a conclusion of No Likely Significant Effect (LSE) was reached are shown with no colour. Those potential impacts where LSEs cannot be ruled out are shown in orange and these are considered in more detail at the Appropriate Assessment stage in **Section 5**.

European sites	Physical Damage and Loss	Non-physical Disturbance	Air Pollution	Recreation	Water Quantity and Quality
Essex Estuaries SAC	No LSE	No LSE	No LSE	<u>Potential LSE</u>	No LSE
Hamford Water SAC	No LSE	No LSE	No LSE	No LSE	No LSE
Hamford SPA and Ramsar	No LSE	No LSE	No LSE	No LSE	No LSE
Abberton Reservoir SPA and Ramsar	<u>Potential LSE (Offsite)</u>	No LSE	No LSE	<u>Potential LSE</u>	No LSE
Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar	<u>Potential LSE (Offsite)</u>	No LSE	No LSE	<u>Potential LSE</u>	No LSE
Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar	<u>Potential LSE (Offsite)</u>	No LSE	No LSE	<u>Potential LSE</u>	No LSE
Stour and Orwell Estuaries SPA and Ramsar	<u>Potential LSE (Offsite)</u>	No LSE	No LSE	<u>Potential LSE</u>	<u>Potential LSE</u>
Dengie (Mid-Essex Coast Phase 1) SPA and Ramsar	No LSE	No LSE	No LSE	<u>Potential LSE</u>	No LSE
Outer Thames Estuary SPA	No LSE	No LSE	No LSE	<u>Potential LSE</u>	No LSE
Foulness (Mid-Essex Coast Phase 5) SPA and Ramsar	No LSE	No LSE	No LSE	No LSE	No LSE
Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA and Ramsar	No LSE	No LSE	No LSE	No LSE	No LSE

Chapter 5

Appropriate Assessment

5.1 Following the screening stage, the plan-making authority is required under Regulation 102 of the Habitats Regulations 2017 (as amended) to make an 'Appropriate Assessment' of the implications of the plan for European sites, in view of their conservation objectives.

5.2 European Commission Guidance³¹ states that the Appropriate Assessment should consider the impacts of the plan (either alone or in combination with other projects or plans) on the integrity of European sites with respect to their conservation objectives and to their structure and function.

5.3 This stage seeks to determine whether implementation of the Local Plan will result in an adverse effect on the integrity of the whole European site in question (many European sites are made up of a number of fragments of habitat). It also considers the potential for in-combination effects from development proposed in neighbouring authorities' Local Plans and the overall quantum of housing within the North Essex Authorities as part of the Strategic Section 1 for Local Plans. Consideration was given to avoidance and mitigation measures that may be included in the Local Plan to reduce the likelihood and significance of effects on European sites.

5.4 A European site's integrity depends on it being able to sustain its 'qualifying features' (i.e. those Annex 1 habitats, Annex II species, and Annex 1 bird populations for which it has been designated) and to ensure their continued viability. A high degree of integrity is considered to exist where the potential to meet a European site's conservation objectives is realised and where the European site is capable of self-repair and renewal with a minimum of external management support. Appropriate Assessment therefore needs to focus on those impacts judged likely to have an effect on the qualifying features of European sites, or where insufficient certainty regarding this remained at the screening stage.

5.5 Likely significant effects arising from the Local Plan, either alone or in-combination, were identified for the following sites and impact types:

- **Physical damage and loss** – in relation to Abberton Reservoir SPA and Ramsar, Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar, Colne Estuary

³¹ 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.

(Mid-Essex Coast Phase 2) SPA and Ramsar, Stour and Orwell Estuaries SPA and Ramsar, Hamford Water SPA and Ramsar

- **Recreation** – in relation to Essex Estuaries SAC, Abberton Reservoir SPA and Ramsar, Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar, Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar, Dengie SPA and Ramsar, Stour and Orwell Estuaries SPA and Ramsar and Outer Thames Estuary SPA.
- **Water Quantity and Quality** – in relation to Stour and Orwell Estuaries SPA and Ramsar.

5.6 Appropriate Assessment has been undertaken for these European sites to determine whether the Local Plan will result in Adverse Effects on Integrity (AEoI).

5.7 The Appropriate Assessment focuses on those impacts that are judged likely to have a significant effect on the qualifying features of a European site, or where insufficient certainty regarding this remained at the screening stage. As described in **Chapter 1**, a conclusion needs to be reached as to whether or not a policy or site allocation in the Local Plan would adversely affect the integrity of a European site. To reach a conclusion, consideration was given to whether the predicted impacts of the proposals (either alone or in combination) have the potential to:

- Delay the achievement of conservation objectives for the site
- Interrupt progress towards the achievement of conservation objectives for the site
- Disrupt factors that help to maintain the favourable conditions of the site
- Interfere with the balance, distribution and density of key species that are the indicators of the favourable condition of the site

5.8 The conservation objectives for the above European sites are to ensure that the integrity of the site is maintained or restored as appropriate, and to ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:

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

- The structure and function of the habitats of qualifying species
- The populations of qualifying species
- The distribution of qualifying species within the site

Physical Damage and Loss (Offsite Functionally Linked Land)

5.9 The Local Plan proposes development in areas where qualifying SPA and Ramsar bird species may make use of offsite habitat for foraging, roosting and loafing. All allocations were identified during the screening assessment as potentially resulting in likely significant effects on the following SPA and Ramsar sites as a result of physical damage and loss as a result of loss of offsite functionally linked habitat of potential importance to designated bird species:

- Abberton Reservoir SPA and Ramsar
- Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar
- Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar
- Stour and Orwell Estuaries SPA and Ramsar

5.10 The above sites share many of the bird species for which they are designated, and the site allocations specified within the Local Plan typically fall within the ranges of the qualifying bird species associated with several European sites. Therefore, to avoid repetition, the assessment of adverse effects on the integrity of these sites as a result of loss of offsite foraging habitat has been considered on an allocation basis in this section. Nevertheless, where there are differences in the assessment findings between European sites, this is made clear below.

5.11 A desk-based study was undertaken to identify potential impacts from proposed allocations on offsite habitat used by the qualifying bird species. The desk-based study has relied on a sequential approach, whereby if a site's suitability for qualifying bird species is considered negligible or low for a specific reason (e.g. distance or habitat type) no further investigations for that allocation were carried out. If, following the initial review of distance and habitat, a site's potential suitability for qualifying bird species could not be ruled out, a more detailed assessment including mapping of existing relevant bird records may be required. The initial desk study included the following components to inform the assessment:

- Identification of the bird species which are susceptible to the loss of the habitat types affected and ruling out those species unlikely to utilise the habitat types located within

the site allocations (e.g. species restricted to marine habitats).

- A review of aerial imagery and Magic Map Application to identify main habitat types and land use within each site allocation and establish their potential value for qualifying birds.
- Recognition of factors likely to affect suitability of allocations for bird species, including openness, size, shape, proximity of negative factors such as tall boundary features and urban environs, and potential existing sources of disturbance.
- Consideration of the site's location within the landscape. For example, is there direct functional connectivity along flight lines between the allocation and the European sites? Are there landscape scale features which would

reduce the suitability of the allocation, e.g. urban areas located along flight lines?

- A review of the site's location within flood risk zones, because many of the SPA bird species favour sites which do or do not flood.

Bird habitat Preferences

5.12 Bird habitat preferences were cross referenced against the habitat types present within each allocation to determine the suitability of site allocations for qualifying species. Known habitat preferences are summarised in **Table 5.1 below**, which were taken from Birds of the Western Palearctic, British Trust for Ornithology. **Table 5.1** also assesses whether each bird species is susceptible to the loss of habitats located within the site allocations.

Table 5.1: Typical Habitat Preferences for Qualifying Bird Species

Bird Species	Season	Species habitat preferences (relative to season of designation)	Susceptible to loss of offsite habitat as a result of the Local Plan
Avocet	Wintering	Highly specialised needs most often met in lowland maritime regions. A taste for extensive highly saline tracts of still shallow water and flat bare sand, clay, or mud forming islands, ridges, spits, or margins. Also favours smaller and less saline pools, lagoons, muddy arms or deltas, and estuaries, and sheltered muddy tidal flats where ample loose sediment is rich in food organisms. Suitable habitat sometimes formed by artefacts such as salt pans, irrigation waters, polders, floodlands, and even purpose-made scrapes and flashes of water on nature reserves.	No – habitat types affected are of low importance for this species.
Hen harrier	Wintering	In winter, often on arable farmland or rough pastures, or on heathland, coastal sand-dunes, and marshy areas. Habitat selection largely governed by availability of preferred prey species which can be seized in the open; otherwise, not discriminating but choosing spacious, relatively undisturbed landscapes rather than areas in intensive human use.	Yes – may utilise arable and pasture in areas away from existing human settlements.
Golden plover	Wintering	In winter, attracted to mown grass or close-grazed pastures, and to stubbles, fallows, harvest fields, and other farmlands of open character, including floodlands. On coast, tends to neglect tidal flats of mud and sand and to prefer open ground above the foreshore, thus sharing more commonly with Lapwings than with other waders. Strong preference for short permanent pasture for feeding where invertebrate (including earthworm) abundance is highest. Will also utilise bare tilled ground but used more frequently for roosting and loafing than feeding.	Yes – may utilise arable and pasture.
Ruff	Wintering	Outside breeding season, the need for proximity between feeding, resting, and roosting places is reduced, with local movements of up to c.20km from one another sometimes being undertaken. Although dry grasslands, harvested cornfields, airfields, and dried beds of seasonal water bodies may still be used, preference is much stronger for muddy margins of lakes, pools, ponds, rivers and other watercourses, irrigated levels, floodlands, and marshes; less frequently seashores and tidal mudflats.	Yes – may utilise arable and pasture.

Bird Species	Season	Species habitat preferences (relative to season of designation)	Susceptible to loss of offsite habitat as a result of the Local Plan
Little tern	Breeding	Frequently coast dwelling, more along mainland than on islands, but spreads freely up suitable reaches of major rivers and to some lakes where suitable conditions occur. Strongly prefers linear strips of bare shingle, shell beach, or sand, only just above normal tide or flood limits, and often only a few metres from shallow clear water, saline or fresh, where fish of suitable size can be caught by plunging, without necessity for extended foraging flights.	No – habitat types affected are of low importance for this species.
Shelduck	Wintering	Choice of wetland, especially for breeding, governed by attachment to salt or brackish water, either shallow coasts and estuaries or inland seas and lakes. As a coastal species, typically ranges only 1-2km out to sea and little further inland. Wholly freshwater habitats distant from sea used only sporadically and by odd pairs or single birds. Needs foraging areas of fairly high productivity, especially sands and mud flats over which shallow water alternates with drying out through tides or evaporation.	No – habitat types affected are of low importance for this species.
Redshank	Wintering	Outside breeding season predominately coastal, feeding mainly on unvegetated tracts of mud on estuaries, marine inlets, and sheltered bays, tending to avoid cliffed and rocky or shingly sectors, and beaches of pure sand. When remaining inland, concentrates at points of ample food resources, such as sewage farms and watersides. As much a wading as a ground bird; swims not infrequently.	No – habitat types affected are of low importance for this species.
Knot	Wintering	Marine intertidal habitat used during rest of year, normally where large flat muddy, sandy, and pebbly beaches uncovered. At high water, often resists being driven back to vegetated zone behind foreshore, and so forced to pack densely at certain spots.	No – habitat types affected are of low importance for this species.
Dunlin	Wintering	Increasingly, towards south of range, favours lowland and grassland coastal habitat, especially in late summer, including salt-marshes, rough grazing land, sand dunes or sandy machair with moist depressions and river flood plains. Presence of surface water, and of unvegetated patches or short grass, moss, or other low herbage essential. Outside breeding season, strongly attracted to broad coastal beaches, especially mudflats rich in invertebrate food accessible as tide ebbs, but also occurs regularly on lagoons, estuaries, tidal rivers, and margins of lakes and other freshwater bodies as well as sewage farms.	Yes – may utilise pasture where regular flooding occurs.
Black-tailed godwit	Wintering	During breeding, typically favours marshy hummocky moorland but changes in land management have created new habitat and poorly drained pastures, damp heaths free of scrub, or border of reedy wetland are of primary importance. But other grasslands managed as meadows, especially when grazed and hay-cut and flooded in winter are also used. Outside the breeding season, favoured habitats include sewage farms, lake margins, tidal marshes, mudflats and sheltered coastal inlets.	Yes – despite a preference for coastal habitat outside the breeding period this species may use flooded pasture and other grasslands for feeding.
Dark-bellied brent goose	Wintering	On leaving breeding quarters, resorts to shallow sea coasts and estuaries, especially with extensive mudflats rich in sea grass. Strongly attached to intertidal feeding zones, but in Britain since 1970's increasing numbers have moved inland to feed on grass and cultivated crops. When not feeding, prefers to rest or sleep on sea surface.	Yes - this species may use pasture and arable fields.
Wigeon	Wintering	Winter habitat lowland and largely maritime, especially along coasts where shallow, fairly sheltered waters and extensive tracts of mud, sand, or salt marsh offer sustenance and security for gatherings. Freshwater and brackish lagoons and tracts of flooded grassland also attractive, and may be used in preference to coastal waters.	Yes- may use flooded pasture.

Bird Species	Season	Species habitat preferences (relative to season of designation)	Susceptible to loss of offsite habitat as a result of the Local Plan
Teal	Wintering	On passage or in winter will frequent open habitats such as shallow tidal coasts, large estuaries, salt-marshes, and lagoons, brackish or saline, flooded fields, and artificial waters such as reservoirs devoid of vegetation.	Yes – may use flooded fields.
Goldeneye	Wintering	In winter, more opportunistic than most relatives, resorting indiscriminately to fresh and salt water with, however, some apparent bias towards estuaries and marine bays, sheltered shallow coasts, and sewage outfalls.	No – habitat types affected are of low importance for this species.
Cormorant	assemblage	Mainly aquatic, in both salt and fresh waters.	No – habitat types affected are not suitable for this species.
Gadwall	Winter	In winter, tends towards local concentration in suitable shallow sheltered parts of large wetlands, lakes, deltas, estuaries, or lagoons.	No – habitat types affected are not suitable for this species.
Pintail	Winter	In winter prefers sheltered coastal habitats, especially on estuaries, floodlands and inland waters nearby. Also feeds on farmland including stubble.	Yes – may use farmland including stubble fields for feeding.
Great crested grebe	Winter	Aquatic on a range of types of open water	No – habitat types affected are not suitable for this species.
Oystercatcher	Wintering	Governed by varying reliance upon successful adaptation to feeding on hard-shelled marine molluscs in intertidal shore zones, and more generalised capacity for feeding on softer-bodied invertebrates, terrestrial as well as marine. Locally, also, need to suitable secure roosts at high tide and acceptable nest sites with easily accessible feeding areas can be limiting factors. Consequently primarily tied to shorelines which can be fed on at low tide, and secondarily to lakesides, riversides, and a wide variety of terrestrial open ground where less specialized feeding techniques can be employed.	No – This species may utilise a range of terrestrial habitats but is primarily reliant on marine habitats and the importance of habitats within the site allocations is low.
Ringed plover	Passage and Wintering	A bird of sea coasts. Secondarily occupies adjoining hinterlands up to substantial distance inland, where estuaries, rivers, lakes, tundra, gravel beds, sand bars, grasslands of spare and low growth, or other suitable well-drained terrain exists. Whether breeding, migrating or wintering, tends to be most numerous and concentrated on wide sandy or shingle tidal beaches, with access to suitable resting or nesting places above high-water mark.	No – habitat types affected are of low importance for this species.
Grey plover	Wintering	After breeding, some use of inland staging points, often by lakes on sand bars, mudflats, pools, and moist places, including short grassy fields and floodlands. Most, however, make straight for the sea coast where in contrast to golden plover, they concentrate mainly in the intertidal zone, on broad mudflats or sandy beaches, and to lesser extent on saltings, islets subject to occasional submergence, and neighbouring freshwater pools.	No – This species may utilise a range of terrestrial habitats but is primarily a marine feeding bird and the importance of habitats within the site allocations is low.
Lapwing	Wintering	Requires ready access to soil carrying appreciable biomass of surface or subsurface organisms, not arid and preferably moist or near saturation. Invariably chooses unenclosed terrain affording unbroken all-round views. Throughout historical times, natural habitat has been encroached with suitable substitutes created through farming, with a shift from natural to agricultural land. Shares general habitat preferences with lapwing including a preference for short grazed permanent pasture and to a lesser extent, arable fields.	Yes - this species is heavily reliant on grasslands, particularly short permanent pastures, and will also utilise arable fields.
Curlew	Wintering	After breeding season, shifts mainly to marine coastal habitat, especially mudflats and sands extensively exposed at low tide, resting on adjoin saltmarshes, foreshores, and floodlands. Rocky beaches with many pools, muddy estuaries and comparable habitats	Yes - this species is heavily reliant on grasslands, particularly those where

Bird Species	Season	Species habitat preferences (relative to season of designation)	Susceptible to loss of offsite habitat as a result of the Local Plan
		beside large inland waters, including riverside and swamp edges are also favoured. This species is known to regularly utilise coastal grasslands and arable fields in large numbers.	flooding occurs. Will also utilise arable fields.
Turnstone	Wintering	Outside breeding season almost entirely coastal, preferring shores which are stony, rocky, or covered with seaweed, and similar artefacts such as sea walls and breakwaters, harbours, and jetties.	No – habitat types affected are of low importance for this species.

5.13 The review of habitat types located within the site allocations, in light of individual bird species preferences, identified the following species as being potentially susceptible to the loss of offsite habitat associated with site allocations proposed within the Local Plan:

- Hen harrier
- Golden plover
- Ruff
- Dunlin
- Black-tailed godwit

- Dark bellied brent goose
- Widgeon
- Teal
- Pintail
- Lapwing
- Curlew

5.14 A summary of the relevant qualifying bird species associated with each of the SPA/Ramsar sites is provided in **Table 5.2** below.

Table 5.2: Qualifying bird species of European sites susceptible to loss of offsite habitat

Key Bird Species Susceptible to loss of functionally linked land	Stour and Orwell SPA/ Ramsar	Blackwater Estuary SPA/ Ramsar	Colne Estuary SPA/ Ramsar	Abberton Reservoir SPA / Ramsar
Golden plover	√	√	√	√
Lapwing	√	√	√	√
Hen harrier	√	√	√	
Ruff		√		
Dunlin	√	√		
Black-tailed godwit	√	√		
Dark-bellied brent goose	√	√	√	
Widgeon	√			
Teal				√
Pintail	√			
Curlew	√			

5.15 Following a review of the species habitat preferences and on-going discussions with Natural England, which has confirmed typical winter foraging and roosting distances for the above species in North Essex, it has been agreed that,

with the exception of lapwing and golden plover, the above species are unlikely to be reliant upon offsite habitats located further than 2km from the SPA/Ramsar sites. Golden plover and lapwing have been recorded travelling considerably

further to access preferred feeding areas and therefore a distance of 15km has been agreed for these species. Lapwing and golden plover are qualifying species for each of the European sites assessed and the 15km distance

encompasses each of the site allocations considered at this Appropriate Assessment stage. The specific bird species requiring consideration at each of the site allocations within the Local Plan is outlined in **Table 5.3** below.

Table 5.3: Bird species requiring consideration at each site allocation

Site Allocation Name	Bird Species requiring consideration based on distance from SPA/Ramsar sites
Tendring / Colchester Borders Garden Community	Golden plover and lapwing only.
TC3 (Land at Britannia Car Park)	Golden plover and lapwing only.
TC3 (Part of St Runwalds Car park)	Golden plover and lapwing only.
NC1 (Residential Allocation)	Golden plover and lapwing only.
NC1 (Northern Gateway Zone 1)	Golden plover and lapwing only.
NC1 (Northern Gateway Zone 2)	Golden plover and lapwing only.
NC1 (Northern Gateway Zone 3)	Golden plover and lapwing only.
NC1 (Employment land to west)	Golden plover and lapwing only.
NC2 (North Station Special Policy Area)	Golden plover and lapwing only.
NC3 (Land at Braiswick)	Golden plover and lapwing only.
EC1 (Knowledge Gateway)	Golden plover and lapwing only.
EC2 (East Colchester / Hythe Special Policy Area)	Golden plover and lapwing only.
EC3 (Land at Port Lane)	Golden plover and lapwing only.
EC3 (East Bay Mill)	Golden plover and lapwing only.
EC3 (Barrington Road/Bourne Road vacant site)	Golden plover and lapwing only.
EC3 (Magdalen Street sites)	Golden plover and lapwing only.
EC3 (Employment Sites)	Golden plover and lapwing only.
SC1 (Employment Land at Gosbecks)	Golden plover and lapwing only.
SC1 (South of Berechurch Hall Road)	Golden plover, lapwing and teal.
SC1 (Land at Gosbecks Phase 2)	Golden plover and lapwing only.
SC1 (Land at Maldon Road / Shrub End)	Golden plover and lapwing only.
SC2 (Middlewick Ranges)	Golden plover and lapwing only.
WC1 (Stanway Economic Area – Zone 1)	Golden plover and lapwing only.
WC1 (Stanway Economic Area – Zone 2)	Golden plover and lapwing only.
WC2 (Land to the North of London Road)	Golden plover and lapwing only.
WC2 (Land between Tollgate West and London Road (former Sainsbury's Site)	Golden plover and lapwing only.

Site Allocation Name	Bird Species requiring consideration based on distance from SPA/Ramsar sites
WC2 (Land off Dyers Road including Fiveways Fruit Farm)	Golden plover and lapwing only.
WC2 (Land to the West of Lakelands)	Golden plover and lapwing only.
WC2 (Land at Chitts Hill)	Golden plover and lapwing only.
WC3 (Colchester Zoo)	Golden plover and lapwing only.
WC4 (Essex County Hospital site, Lexden Road)	Golden plover and lapwing only.
WC4 (Land at Irvine Road)	Golden plover and lapwing only.
SS1 (Land to the west of Peldon Road)	Golden plover, lapwing, teal, hen harrier and dark-bellied brent goose.
SS1 (Land to the east of Peldon Road)	Golden plover, lapwing, teal, hen harrier and dark-bellied brent goose.
SS1 (Pantiles Farm employment Land)	Golden plover, lapwing teal, hen harrier, ruff, dunlin, black-tailed godwit and dark-bellied brent goose.
SS2 (Hill Farm, Boxted)	Golden plover and lapwing only.
SS2 (Employment Land)	Golden plover and lapwing only.
SS3 (Chappel and Wakes Colne)	Golden plover and lapwing only.
SS4 (East of Queensberry Avenue)	Golden plover and lapwing only.
SS4 (West of Hall Road)	Golden plover and lapwing only.
SS5 (Fiddler Field)	Golden plover and lapwing only.
SS6 (Fordham)	Golden plover and lapwing only.
SS7 (Great Horkesley Manor)	Golden plover and lapwing only.
SS7 (School Lane)	Golden plover and lapwing only.
SS8 (Land on Brook Road)	Golden plover and lapwing only.
SS8 (Land off Greenfield Drive)	Golden plover and lapwing only.
SS9 (Wick Road)	Golden plover and lapwing only.
SS9 (School Road)	Golden plover and lapwing only.
SS9 (Employment Land)	Golden plover and lapwing only.
SS10 (Layer de la Haye)	Golden plover, lapwing and teal.
SS11 (The Anderson's site, Employment Land)	Golden plover and lapwing only.
SS12A (Dawes Lane)	Golden plover, lapwing, hen harrier, ruff, dunlin, black-tailed godwit and dark-bellied brent goose.
SS12A (Brierley Paddocks)	Golden plover, lapwing, hen harrier, ruff, dunlin, black-tailed godwit and dark-bellied brent goose
SS12A (Employment Land)	Golden plover, lapwing, hen harrier, ruff, dunlin, black-tailed godwit and dark-bellied brent goose

Site Allocation Name	Bird Species requiring consideration based on distance from SPA/Ramsar sites
SS12B (Coast Road, West Mersea)	Golden plover, lapwing, hen harrier, ruff, dunlin, black-tailed godwit and dark-bellied brent goose.
SS12C (Mersea Island Caravan Parks)	Golden plover, lapwing, hen harrier, ruff, dunlin, black-tailed godwit and dark-bellied brent goose.
SS13 (Rowhedge Business Centre)	Golden plover and lapwing only.
SS14 (Tiptree)	Golden plover and lapwing only.
SS14 (Employment Land, Tower Business Park)	Golden plover and lapwing only.
SS14 (Employment Land - Alexander Cleghorn)	Golden plover and lapwing only.
SS14 (Employment Land - Basketworks)	Golden plover and lapwing only.
SS14 (Employment Land – Tiptree Jam Factory)	Golden plover and lapwing only.
SS15 (West Bergholt)	Golden plover and lapwing only.

Assessment of suitability of site allocations as offsite habitat

5.16 Following the establishment of typical habitat preferences for each species, and in light of existing bird records, each allocation site in the Local Plan was assessed for its suitability in supporting the relevant SPA birds. The assessment was based on a number of parameters, as described in **Table 5.3** below. Typically, site allocations displayed varying combinations of the parameters outlined below, and were therefore subject to professional judgement and interpretation.

Table 5.4: Habitat suitability rating criteria

Suitability for SPA and Ramsar Birds	Typical Description
High	Large sites; area of suitable habitat (e.g. wet grasslands, permanent pastures, arable) capable of supporting significant numbers of SPA birds; absence of any notable negative factors such as PRow and edge features; land parcel functionally linked with wider habitat and directly linked to SPA/Ramsar via green corridor; site may be prone to flooding (although note absence of flooding favoured by lapwing and golden plover); typically close (within 2km) to SPA/Ramsar and coast.
Moderate	Sites support large areas of functionally linked suitable habitat capable of attracting numbers of SPA birds which by themselves are unlikely to be significant, but which may contribute to supporting significant numbers of birds in-combination with other sites. Likely to be further (over 2km) from SPA/Ramsar and coast, and with presence of some limiting factors.
Low	Smaller or fragmented sites; habitats present may be suitable for supporting low numbers of SPA birds on occasion but limited by negative factors such as size, distance from SPA/Ramsar; absence of sight lines and reductions in 'openness' as a result of edge features such as trees, scrub, and buildings; edge features likely to be close to centre of site; suitability may be compromised by existing recreational use; may be isolated within urban areas.
Negligible	Habitats present are entirely unsuitable for SPA birds, for example existing developed land or small urban infill sites.

Table 5.5: Suitability of Allocations for SPA and Ramsar Birds

Site Allocation Name	Review of Site Parameters	Assessment of Suitability for SPA Qualifying birds
TC3 (Land at Britannia Car Park)	Species considered: Golden plover and lapwing Urban landscape entirely unsuitable for SPA birds.	Negligible
TC3 (Part of St Runwalds Car park)	Species considered: Golden plover and lapwing Urban landscape entirely unsuitable for SPA birds.	Negligible
NC1 (Northern Gateway Zone 1)	Species considered: Golden plover and lapwing Industrial buildings, surrounded by hardstanding with small areas of grassland, scrub, hedgerow and trees also present. Entire site bound by urban development or busy roads.	Negligible
NC1 (Northern Gateway Zone 2)	Species considered: Golden plover and lapwing Urban landscape with sports stadium, large gym, associated parking and two small areas of grassland bound by roads.	Negligible
NC1 (Northern Gateway Zone 3)	c.8.0km from Stour and Orwell Estuaries SPA and Ramsar c.9.3km from Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar c.9.3km from Abberton Reservoir SPA and Ramsar c.13.2km from Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar Species considered: Golden plover and lapwing Area: 44.1 Previously arable land which under development. Remaining habitats include a small arable field (5.1ha), grassland, hedgerows and small woodland. New habitats include hardstanding and buildings. Disturbance likely high due to surrounding development and busy road to the south.	Low
NC1 (Employment land to west)	Species considered: Golden plover and lapwing Urban business park dominated by building and hardstanding with small isolated areas of grassland and scrub. Unsuitable for SPA birds.	Negligible
NC1 (Residential Allocation)	Species considered: Golden plover and lapwing Several shortly mown grass sports pitches with boundary hedgerows and some scrub. Disturbance likely to be high given the sports pitches.	Negligible
NC2 (North Station Special Policy Area)	Species considered: Golden plover and lapwing Urban landscape entirely unsuitable for SPA birds.	Negligible
NC3 (Land at Braiswick)	c.10.9km from Stour and Orwell Estuaries SPA and Ramsar c.9.0km from Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar c.7.3km from Abberton Reservoir SPA and Ramsar c.11.5km from Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar Area: 5.3Ha Species considered: Golden plover and lapwing Broadleaved woodland dominates the site, the west of which has a small brook. Two grassland fields (0.9ha and 1.1ha) with scrub bound by hedgerows or treelines are also present. A PRoW runs along the eastern boundary.	Low – part of the site has planning consent
EC1 (Knowledge Gateway)	Species considered: Golden plover and lapwing	Negligible

Site Allocation Name	Review of Site Parameters	Assessment of Suitability for SPA Qualifying birds
	Largely developed university campus with buildings, hardstanding, amenity grassland and scattered trees. Considered unsuitable for SPA birds due to high disturbance and lack of suitable habitat.	
EC2 (East Colchester / Hythe Special Policy Area)	Species considered: Golden plover and lapwing Industrial landscape entirely unsuitable for SPA birds.	Negligible
EC3 (Land at Port Lane)	Species considered: Golden plover and lapwing Industrial landscape entirely unsuitable for SPA birds.	Negligible
EC3 (East Bay Mill)	Species considered: Golden plover and lapwing Small site (0.4Ha) comprised of tall ruderal, scrub, scattered trees and a mill adjacent a river. The site is located in an urban environment and bound by housing, allotments and a road, creating a lack of openness favoured by golden plover and lapwing.	Negligible
EC3 (Barrington Road/Bourne Road vacant site)	Species considered: Golden plover and lapwing Small site (1Ha) comprised of grassland, scrub and trees bound by dense urban housing. Surrounding housing and lack of openness make this site unsuitable for golden plover and lapwing.	Negligible
EC3 (Magdalen Street sites)	Species considered: Golden plover and lapwing Industrial landscape entirely unsuitable for SPA birds.	Negligible
EC3 (Employment Sites)	Species considered: Golden plover and lapwing Industrial landscapes entirely unsuitable for SPA birds.	Negligible
SC1 (Employment Land at Gosbecks)	Species considered: Golden plover and lapwing Existing employment land with small undeveloped area of amenity grassland, trees and hedgerow.	Negligible
SC1 (Land at Gosbecks Phase 2)	c.2.7km from Abberton Reservoir SPA and Ramsar c.6.5km from Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar c.7km from Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar c.14.3km from Stour and Orwell Estuaries SPA and Ramsar Area: 6.0Ha Species considered: Golden plover and lapwing Southern parcel comprises a large arable field (5.1Ha) with south boundary mostly lined by hedgerow which adjoins further arable fields. Northern parcel comprises a smaller arable field (0.9Ha) bound by lines of trees and hedgerow but separated from south parcel by a road.	n/a - site has planning consent
SC1 (South of Berechurch Hall Road)	c.1.9km from Abberton Reservoir SPA and Ramsar c.5.6km from Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar c.6.1km from Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar c.14.1km from Stour and Orwell Estuaries SPA and Ramsar Area: 7.1Ha Species considered: Golden plover, lapwing and teal Eastern parcel comprises large arable field (5Ha) bound by hedgerows with trees on southern boundary adjoining further arable fields. Western parcel comprises horse pasture with scattered trees, hedgerows and scrub.	Moderate

Site Allocation Name	Review of Site Parameters	Assessment of Suitability for SPA Qualifying birds
SC1 (Land at Maldon Road / Shrub End)	Species considered: Golden plover and lapwing Urban landscape entirely unsuitable for SPA birds.	Negligible
SC2 (Middlewick Ranges)	c.2.8km from Abberton Reservoir SPA and Ramsar c.3.3km from Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar c.6.2km from Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar c.11.5km from Stour and Orwell Estuaries SPA and Ramsar Area: 76Ha Species considered: Golden plover and lapwing A very large open site bordering a rural landscape to the south. The majority of the site comprises grassland with hedgerows and a wooded corridor following a brook.	Moderate
WC1 (Stanway Economic Area – Zone 1)	c.5.7km from Abberton Reservoir SPA and Ramsar c.9.8km from Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar c.10.3km from Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar Species considered: Golden plover and lapwing Mixed site with industrial land comprising building and hardstanding, an arable field (3Ha), and two areas of grassland (7.1Ha and 3.7Ha). The grassland parcels are adjoined by roads, housing and industrial land reducing their suitability for SPA birds. The arable field adjoin a more rural landscape with further arable land to the south and west. It is bound by hedgerow on the north, south and west boundaries	Low
WC1 (Stanway Economic Area – Zone 2)	Species considered: Golden plover and lapwing Commercial landscape entirely unsuitable for SPA birds.	Negligible
WC2 (Land to the North of London Road)	c.6.4km from Abberton Reservoir SPA and Ramsar c.9.8km from Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar c.10.5km from Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar Area: 35Ha Species considered: Golden plover and lapwing Sites comprises one large arable field (20Ha) bound by hedgerows in the north and a series of grassland fields with hedgerows, scattered trees and scrub in the south. This arable field lies adjacent south of the A12, north of which is a rural landscape. A PRoW dissects the large arable field.	Moderate
WC2 (Land between Tollgate West and London Road (former Sainsbury's Site))	Species considered: Golden plover and lapwing A brownfield site predominately comprised of hardstanding and bare ground with narrow tree belts to the north and east. Surrounded by development on all aspects.	Negligible
WC2 (Land off Dyers Road including Fiveways Fruit Farm)	c.4.1km from Abberton Reservoir SPA and Ramsar c.8.3km from Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar c.8.4km from Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar Area: 27Ha Species considered: Golden plover and lapwing	Moderate

Site Allocation Name	Review of Site Parameters	Assessment of Suitability for SPA Qualifying birds
	Large site predominately comprised of arable land with woodland and a complex network of hedgerows. Urban development borders the site to the north, all other aspects are rural landscapes.	
WC2 (Land to the West of Lakelands)	<p>c.5.5km from Abberton Reservoir SPA and Ramsar c.9.6km from Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar c.9.6km from Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar Species considered: Golden plover and lapwing Area: 3.7ha</p> <p>A small parcel of a larger arable field and grassland (recently disturbed). The arable field backs on other arable fields.</p>	Moderate
WC2 (Land at Chitts Hill)	<p>c.6.3km from Abberton Reservoir SPA and Ramsar c.9.9km from Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar c.10.5km from Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar Area: 6.7Ha Species considered: Golden plover and lapwing</p> <p>Arable field bound by hedgerow and mature tree belt. A railway line is present adjacent north, beyond which there is further arable land. Other bordering land comprises residential housing and amenity grassland.</p>	n/a – site has planning consent
WC3 (Colchester Zoo)	<p>c.6.3km from Abberton Reservoir SPA and Ramsar c.9.9km from Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar c.10.5km from Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar Species considered: Golden plover and lapwing Area: 63Ha</p> <p>Much of the site is already developed and comprises predominantly hardstanding and buildings. To the east the site is undeveloped and is dominated by two large arable fields (15.2Ha and 8.3Ha). The arable fields have PRoW (footpath and bridleway) and are bound largely by woodland and hedgerow. Notably there is a river along the site's southern boundary. The general landscape surrounding the site is rural.</p>	Moderate
WC4 (Essex County Hospital site, Lexden Road)	<p>Species considered: Golden plover and lapwing</p> <p>Urban landscape entirely unsuitable for SPA birds.</p>	Negligible
WC4 (Land at Irvine Road)	<p>Species considered: Golden plover and lapwing</p> <p>A small site (0.6Ha) comprising and orchard and grassland. Surrounded by dense urban development on all aspects.</p>	Negligible
SS1 (Land to the west of Peldon Road)	<p>c.0.6km from Abberton Reservoir SPA and Ramsar c.1.6km from Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar c.2.7km from Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar Area: 1.21Ha Species considered: Golden plover, lapwing, teal, hen harrier and dark-bellied brent goose</p> <p>A small arable field to the south bound by hedgerow and bordering further arable land. To the north there is a mostly grassland with scrub and hedgerow. Suitable for all SPA birds considered except teal.</p>	Low

Site Allocation Name	Review of Site Parameters	Assessment of Suitability for SPA Qualifying birds
SS1 (Land to the east of Peldon Road)	c.0.7km from Abberton Reservoir SPA and Ramsar c.1.8km from Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar c.2.8km from Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar Area: 0.4Ha Species considered: Golden plover, lapwing, teal, hen harrier and dark-bellied brent goose Small area of grassland bound by hedgerow with scattered trees to the south of a residential area.	Low
SS1 (Pantiles Farm employment land)	Species considered: Golden plover, lapwing, teal, hen harrier and dark-bellied brent goose Existing employment land comprising building and hardstanding.	Negligible
SS2 (Hill Farm, Boxted)	Species considered: Golden plover and lapwing The site has already been developed into housing and hardstanding. A small narrow strip of grassland remains.	Negligible
SS2 (Employment Land)	Species considered: Golden plover and lapwing The site is existing employment land dominated by buildings and hardstanding.	Negligible
SS3 (Chappel and Wakes Colne)	c.12.1km from Abberton Reservoir SPA and Ramsar Area: 1.7Ha Species considered: Golden plover and lapwing A small arable field bordered by a wooded railway line to the east and rural housing to the north. The landscape is largely rural with many nearby arable fields.	Low
SS4 (East of Queensberry Avenue)	c.6.7km from Abberton Reservoir SPA and Ramsar c.10.6km from Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar c.11.6km from Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar Area: 2.8Ha Species considered: Golden plover and lapwing Small parcel arable and woodland habitat which forms part of a larger arable field. There is residential housing the east, south and west whilst the north comprises an arable/woodland mosaic.	Low
SS4 (West of Hall Road)	c.6.7km from Abberton Reservoir SPA and Ramsar c.10.6km from Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar c.11.6km from Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar Area: 1.9Ha Species considered: Golden plover and lapwing Small open area of arable land which forms a parcel of a much arable field. Adjoins further arable land to the south and east.	Low
SS6 (Fordham)	c.10.5km from Abberton Reservoir SPA and Ramsar c.13.8km from Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar c.15.0km from Stour and Orwell Estuaries SPA and Ramsar Area: 0.6Ha Species considered: Golden plover and lapwing	Low

Site Allocation Name	Review of Site Parameters	Assessment of Suitability for SPA Qualifying birds
	Arable field which has been previously used for horse pasture. Borders a substantial area of pasture to the east.	
SS7 (Great Horkesley Manor)	<p>c.9.2km from Abberton Reservoir SPA and Ramsar</p> <p>c.10.1km from Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar</p> <p>c.10.5km from Stour and Orwell Estuaries SPA and Ramsar</p> <p>c.13.3km from Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar</p> <p>Area: 7.4Ha</p> <p>Species considered: Golden plover and lapwing</p> <p>Predominately arable habitat surrounding a manor and gardens. Borders a rural landscape to the east but is separated from this by a belt of plantation woodland. The site lacks openness due its layout with the moat central to the arable land.</p>	n/a – site has planning consent
SS7 (School Lane)	<p>Area: 0.6Ha</p> <p>Species considered: Golden plover and lapwing</p> <p>Small enclosed site comprising buildings, hardstanding, hedgerow grassland and scattered trees.</p>	Negligible
SS8 (Land on Brook Road)	<p>c.9.8km from Abberton Reservoir SPA and Ramsar</p> <p>c.13.1km from Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar</p> <p>c.14.4km from Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar</p> <p>Area: 0.7</p> <p>Species considered: Golden plover and lapwing</p> <p>Small narrow arable field enclosed by hedgerow. Borders further arable land to the east and south.</p>	n/a – site has planning consent
SS8 (Land off Greenfield Drive)	<p>c.10.3km from Abberton Reservoir SPA and Ramsar</p> <p>c.13.6km from Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar</p> <p>c.14.9km from Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar</p> <p>Area: 1.7Ha</p> <p>Species considered: Golden plover and lapwing</p> <p>Part of a large open arable field which borders further arable/pasture land to the north, south and west.</p>	Low
SS9 (Wick Road)	<p>c.5.2km from Stour and Orwell Estuaries SPA and Ramsar</p> <p>c.10.0km from Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar</p> <p>c.11.7km from Abberton Reservoir SPA and Ramsar</p> <p>Area: 1.1Ha</p> <p>Species considered: Golden plover and lapwing</p> <p>Small area of pasture alongside Wick Road.</p>	Low
SS9 (School Road)	<p>c.5.1km from Stour and Orwell Estuaries SPA and Ramsar</p> <p>c.10.7km from Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar</p> <p>c.12.2km from Abberton Reservoir SPA and Ramsar</p> <p>Area: 4.0Ha</p> <p>Species considered: Golden plover and lapwing</p>	Low

Site Allocation Name	Review of Site Parameters	Assessment of Suitability for SPA Qualifying birds
	<p>The eastern parcel comprises small parcel of pasture (2.2Ha) enclosed by hedgerow. It borders housing to the north and east, arable land to the south and commercial units to the west.</p> <p>The western parcel comprises a small part (1.8Ha) of much larger arable field (17.7Ha) which border further arable land to the east, south and west.</p>	
SS9 (Employment Land)	<p>Species considered: Golden plover and lapwing</p> <p>The site is existing employment land dominated by buildings and hardstanding.</p>	Negligible
SS10 (Layer de la Haye)	<p>c.1km from Abberton Reservoir SPA and Ramsar</p> <p>c.4.6km from Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar</p> <p>c.4.9km from Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar</p> <p>Area: 3.0Ha</p> <p>Species considered: Golden plover, lapwing and teal</p> <p>Arable land bound by hedgerows and treelines. Borders residential housing the south and west and a more rural landscape, including arable, to the north and east. Suitable for golden plover and lapwing only.</p>	Moderate
SS11 (The Anderson's site, Employment Land)	<p>Species considered: Golden plover and lapwing</p> <p>The site is existing employment land dominated by buildings and hardstanding.</p>	Negligible
SS12A (Dawes Lane)	<p>c.0.9km from Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar</p> <p>c.1.0km from Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar</p> <p>c.5.2km from Abberton Reservoir SPA and Ramsar</p> <p>Area: 3.9Ha</p> <p>Species considered: Golden plover, lapwing, hen harrier, ruff, dunlin, black-tailed godwit and dark-bellied brent goose</p> <p>Large open arable field bordering further arable land to the north and east. Suitable for all SPA birds considered except dunlin and black-tailed godwit.</p>	n/a – site has planning consent
SS12A (Brierley Paddocks)	<p>c.1.0km from Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar</p> <p>c.1.3km from Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar</p> <p>c.5.6km from Abberton Reservoir SPA and Ramsar</p> <p>Area: 8.9Ha</p> <p>Species considered: Golden plover, lapwing, hen harrier, ruff, dunlin, black-tailed godwit and dark-bellied brent goose</p> <p>Large open arable field bordering further arable land to the east.</p>	n/a – site has planning consent
SS12A (Employment Land)	<p>Species considered: Golden plover, lapwing, hen harrier, ruff, dunlin, black-tailed godwit and dark-bellied brent goose</p> <p>The site is existing employment land dominated by buildings and hardstanding.</p>	Negligible
SS12B (Coast Road, West Mersea)	<p>Within Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar</p> <p>c.2.2km from Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar</p> <p>c.4.5km from Abberton Reservoir SPA and Ramsar</p> <p>Species considered: Golden plover, lapwing, hen harrier, ruff, dunlin, black-tailed godwit and dark-bellied brent goose</p> <p>Dense coastal development unsuitable for SPA birds.</p>	Negligible

Site Allocation Name	Review of Site Parameters	Assessment of Suitability for SPA Qualifying birds
SS12C (Mersea Island Caravan Parks)	<p>Species considered: Golden plover, lapwing, hen harrier, ruff, dunlin, black-tailed godwit and dark-bellied brent goose</p> <p>The sites are all existing caravan parks. The caravans are present at a high density with amenity grassland between them. Recreational disturbance at these sites is likely to be very high.</p>	Negligible
SS13 (Rowhedge Business Centre)	<p>c.2.2km from Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar</p> <p>c.3.3km from Abberton Reservoir SPA and Ramsar</p> <p>c.6.1km from Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar</p> <p>c. 12.2km from Stour and Orwell Estuaries SPA and Ramsar</p> <p>Area: 5.0Ha</p> <p>Species considered: Golden plover and lapwing</p> <p>Mixed site with building, hardstanding, woodland, hedgerows and three small grassland fields. The grassland fields are small, enclosed by hedgerows and appear intensively managed which reduces their suitability for SPA birds.</p>	Low
SS14 (Tiptree, Tower End)	<p>Allocations designated in in the Tiptree Neighbourhood Plan³².</p> <p>c.5.0km from Abberton Reservoir SPA and Ramsar</p> <p>c.7.1km from Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar</p> <p>c.11.9km from Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar</p> <p>Area: 10.5Ha</p> <p>Species considered: Golden plover and lapwing</p> <p>Series of arable and pasture fields bordering further arable land to the west. Urban development borders the Site to north and east whilst to the south there is amenity grassland and woodland.</p>	Moderate
SS14 (Tiptree, Highland Nursery)	<p>Allocations designated in in the Tiptree Neighbourhood Plan³².</p> <p>c.5.0km from Abberton Reservoir SPA and Ramsar</p> <p>c.7.2km from Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar</p> <p>c.11.9km from Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar</p> <p>Area: 12.4Ha</p> <p>Species considered: Golden plover and lapwing</p> <p>Predominately a large open arable field bordering an expanse of arable land to the north.</p>	Moderate
SS14 (Tiptree, Elms Farm)	<p>Allocations designated in in the Tiptree Neighbourhood Plan³².</p> <p>c.4.3km from Abberton Reservoir SPA and Ramsar</p> <p>c.6.6km from Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar</p> <p>c.11.1km from Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar</p> <p>Area: 10.8Ha</p> <p>Species considered: Golden plover and lapwing</p> <p>One large arable field bordering an expanse of arable land to the north-west. There are two smaller fields which have been previously been used as arable land but currently look uncultivated.</p>	Moderate
SS14 (Tiptree – Employment Land,	<p>c.5.2km from Abberton Reservoir SPA and Ramsar</p> <p>c.7.3km from Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar</p> <p>c.12.1km from Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar</p>	Low

³² <https://www.colchester.gov.uk/info/cbc-article/?catid=neighbourhood-planning&id=KA-03237>

Site Allocation Name	Review of Site Parameters	Assessment of Suitability for SPA Qualifying birds
Tower Business Park)	<p>Species considered: Golden plover and lapwing</p> <p>Area: 4.0Ha</p> <p>The site comprises existing employment land dominated by buildings and hardstanding but also several small grassland fields used for horse grazing. The grassland fields border further pasture and arable land to the east and south but are small and enclosed by hedgerow which reduces their suitability for SPA birds.</p>	
SS14 (Employment Land - Alexander Cleghorn)	<p>Species considered: Golden plover and lapwing</p> <p>The site is existing employment land dominated by buildings and hardstanding.</p>	Negligible
SS14 (Employment Land - Basketworks)	<p>Species considered: Golden plover and lapwing</p> <p>The site is existing employment land dominated by buildings and hardstanding.</p>	Negligible
SS14 (Employment Land – Tiptree Jam Factory)	<p>c.3.8km from Abberton Reservoir SPA and Ramsar</p> <p>c.5.2km from Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar</p> <p>c.10.6km from Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar</p> <p>Species considered: Golden plover and lapwing</p> <p>Area: 4.0Ha</p> <p>The site comprises existing employment land comprised of a single arable field with lake bound almost entirely by hedgerow. The site borders extensive arable land to the east, south and west.</p>	Moderate
SS15 (West Bergholt, Site A)	<p>Allocations designated in the West Bergholt Neighbourhood Plan³³.</p> <p>c.8.5km from Abberton Reservoir SPA and Ramsar</p> <p>c.10.9km from Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar</p> <p>c.12.3km from Stour and Orwell Estuaries SPA and Ramsar</p> <p>c.12.7km from Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar</p> <p>Area: 2.3Ha</p> <p>Species considered: Golden plover and lapwing</p> <p>Large private garden and a part of a small enclosed arable field, borders further arable land to the north-east. Borders housing to the south and west.</p>	Low
SS15 (West Bergholt, Site B)	<p>Allocations designated in the West Bergholt Neighbourhood Plan³³.</p> <p>c.8.2km from Abberton Reservoir SPA and Ramsar</p> <p>c.10.6km from Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar</p> <p>c.12.2km from Stour and Orwell Estuaries SPA and Ramsar</p> <p>c.12.4km from Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar</p> <p>Area: 2.3Ha</p> <p>Species considered: Golden plover and lapwing</p> <p>One small enclosed arable field and part of a larger, more open arable field. Borders housing to the east, south and west but arable land to the north.</p>	Low

5.17 The desk-based review of site allocations identified that the majority of site allocations were considered to have low or negligible potential to support significant numbers of SPA/Ramsar qualifying bird species, either alone or

³³ <https://www.colchester.gov.uk/info/cbc-article/?catid=neighbourhood-planning&id=KA-02475>

cumulatively with other allocations, and were therefore discounted from further consideration in terms of offsite functional land.

5.18 No sites were identified as having high potential to support notable numbers of SPA birds. Several sites were identified as having moderate potential to provide suitable offsite foraging habitat for notable numbers of SPA birds. In isolation the importance of such sites for these species is likely to be low when compared with the extensive areas of habitat of greater suitability both within the Borough and the wider region. As a result, the potential for the loss of offsite habitat to adversely affect these species relates primarily to the cumulative effect of reducing the extent of feeding areas. The likelihood of this occurring is low considering the small amount of habitat affected as a proportion of that available around each of the European sites.

5.19 Despite the above, a low level of uncertainty remains under the precautionary principle as to whether the cumulative loss of habitats within these site allocations will combine to adversely affect the integrity of the SPA/Ramsar sites. Given the dependency of these species on offsite arable fields and grasslands, inclusion and implementation of appropriate safeguards and mitigation is recommended.

Mitigation

5.20 Given the extent of suitable offsite foraging habitat for qualifying bird species within Colchester and the wider region, it is unlikely that site allocations would combine to affect significant numbers of birds. Nevertheless, in accordance with the precautionary principle, the following safeguards could be provided to ensure a level of absolute certainty in the unlikely event that significant numbers are forecast to be affected:

- Wintering bird surveys for sites with high and moderate suitability to support these qualifying bird species to determine their cumulative importance for these species and inform mitigation proposals in advance if required.
- A commitment to mitigation and phasing of development dependent on the findings of bird surveys. This will need to take into account the cumulative numbers of SPA birds affected by the allocations as they come forward for development. In the unlikely event that cumulative numbers of SPA birds affected are likely to exceed thresholds of significance (i.e. >1% of the associated European Site), appropriate mitigation in the form of habitat creation and management in perpetuity, either on-site or through provision of strategic sites for these species elsewhere within Colchester Borough, would be required. If required, mitigation will need to create and manage suitably located habitat which maximises

feeding productivity for these SPA species, and such mitigatory habitat would need to be provided and fully functional prior to development which would affect significant numbers of SPA birds.

5.21 The amount of land required would be proportional to the number of birds affected, therefore in the unlikely event that significant cumulative numbers of birds are predicted to be affected, the area required would be expected to be relatively small and more than capable of being accommodated within the Borough.

5.22 In addition to this, Policy ENV1 within the Local Plan will provide safeguards and mitigation measures from physical damage and loss of habitats.

In-Combination Effects

5.23 Loss of offsite functionally linked land is by its very nature an in-combination effect because no single allocation or policy is sufficient to result in an adverse effect on integrity of a European site. Indeed, it is the cumulative loss of such land that poses a risk to bird populations that depend upon them. The avoidance and mitigation safeguards above will ensure that individual allocation will be surveyed for qualifying bird species if necessary. If these surveys identify that a significant population of qualifying birds are likely to be affected, it will trigger a requirement for alternative areas of land of equal or greater suitability for the species affected. This land would be provided and functional prior to habitat loss, and therefore there is no mechanism by which in-combination effects could occur.

Conclusion

5.24 Providing the above mitigation measures are incorporated into the Local Plan, and implemented successfully, adverse effects on the integrity of the Stour and Orwell SPA/Ramsar, Colne Estuary SPA/Ramsar, Blackwater Estuary SPA/Ramsar, and Abberton Reservoir SPA/Ramsar, as a result of damage and loss of habitat will be avoided either alone or in-combination with other plans and projects.

Recreation

Outer Thames Estuary SPA

5.25 The qualifying species (red throated diver and tern species) of the Outer Thames Estuary SPA are susceptible to disturbance. However, it is necessary to consider the likelihood of population growth resulting from the Local Plan resulting in an adverse effect on the integrity of the qualifying features of the SPA. The SPA comprises an area of open sea

covering c.3924km², extending over 40km from the coastline, and reaching as far north as Great Yarmouth. The boundary of this SPA is based on the foraging area of the qualifying species, and notably excludes most of the coastal water in close proximity to Tendring and Colchester.

5.26 Whilst feeding in the open sea, red throated diver and tern species are highly mobile, covering vast distances, whereas recreational boats would be expected to remain relatively close to the coast. Given the mobility of these species and the visibility afforded to them while feeding and loafing at sea they are unlikely to be disturbed by watercraft to any level approaching a risk of adverse effect on integrity, being able to easily maintain a distance they are comfortable with. Furthermore, the increase in usage of watercraft is unlikely to result in any discernible increase in the numbers, distribution or frequency of watercraft navigating these waters, particularly when considered in light of their existing usage and importance as established commercial fishing and shipping importance.

5.27 Therefore, the Local Plan will not result in adverse effects on the integrity of the Outer Thames Estuary SPA either alone or in-combination.

Abberton Reservoir SPA and Ramsar

5.28 Abberton Reservoir SPA is located to the south of Colchester in Colchester Borough. The key threats are from ground-based recreational activities, including walking, bird watching and occasional trespassing, and air-based activities from low-flying civilian and military aircraft. It is expected that any increases in recreational pressure to the qualifying bird species of the SPA as a result of the Local Plan are only likely to occur in relation to ground-based activities.

5.29 Following a review of management at the site, it was found that the SPA is subject to a strong visitor management regime and the Site Improvement Plan for Abberton Reservoir states that disturbance at ground level is well controlled by Essex & Suffolk Water. In addition, the site is well managed by the Essex Wildlife Trust which implements measures to reduce and manage disturbance, such as provision of an education visitor centre, paths, screens, hides and areas which are not accessible to the public, all of which are overseen by the presence of on-sight wardening. Furthermore, Natural England has advised that recreational impacts on Abberton Reservoir can be ruled out.

5.30 Based on this information, increased population growth as a result of the Local Plan is not predicted to result in adverse effects in the integrity of the SPA as a result of recreational pressure, either alone or in-combination with other plans or projects.

Colne Estuary SPA and Ramsar

5.31 The Colne Estuary SPA and Ramsar site is located along the southeast of Colchester Borough. The key threat to this site relates primarily to disturbance of water birds from people and dogs, in addition to water sports such as use of jet skis and motorboats.

5.32 In general, the majority of housing allocations, which are likely to represent the main source of increases in recreational visits to the SPA/Ramsar, are located several kilometres away from the Colne Estuary. As a result, the majority of additional visitors as a result of the Local Plan are likely to arrive by car, and therefore the provision of alternative open space close to home may represent a useful measure in helping to mitigate recreational impacts. This is discussed in more detail in the mitigation section below.

5.33 Visitor monitoring by Colchester Borough Council between 2010 and 2013 was undertaken at Cudmore Grove and Brightlingsea Marshes parts of the SPA, 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. Natural England agreed that these visitor surveys could be used as evidence for the Essex Coast RAMS. Further summer visitor surveys at Cudmore Grove were undertaken as part of the Essex Coast RAMS.

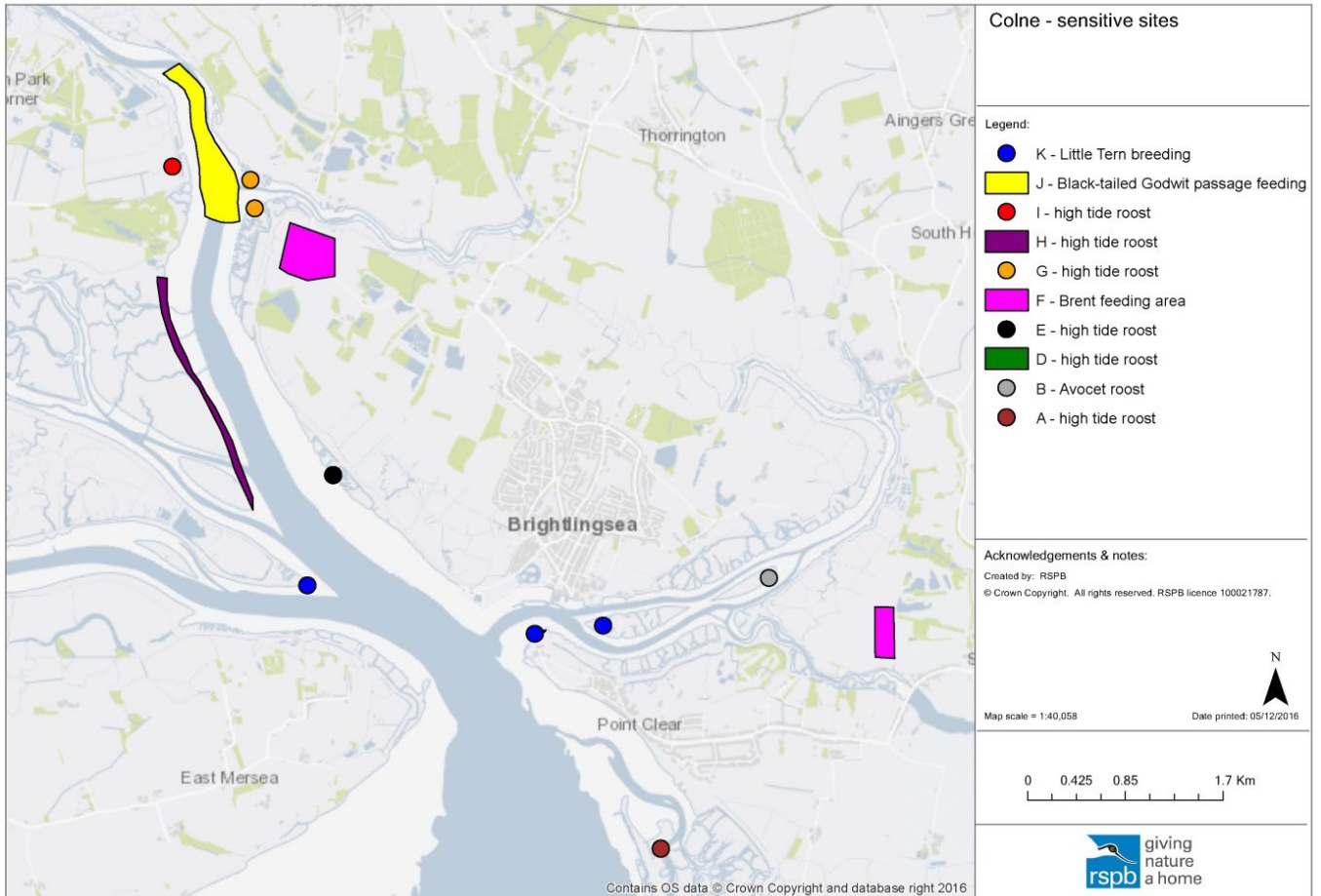
5.34 Many of the key areas of importance within the SPA/Ramsar are currently managed by Natural England and Essex Wildlife Trust to protect and benefit the qualifying bird species of the Colne Estuary, including taking measures to protect key areas from recreational disturbance such as through restricting 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 public access, for example via provision of car parks and Public Rights of Way occur in close proximity to sensitive locations.

5.35 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.

5.36 Figure 5.1 below, has been produced by the RSPB. It is indicative and identifies sensitive areas of the Colne Estuary in terms of nesting, roosting and feeding for qualifying bird species. This information will continue to be updated as part of the Essex Coast RAMS to reflect monitoring and survey

results, and consultation with key stakeholders, including Natural England, the RSPB, the BTO, the Wildlife Trust and other land managers.

Figure 5.1: Colne Estuary sensitive bird sites identified by RSPB



5.37 The Colne Estuary National Nature Reserve (NNR) comprises much of the SPA in areas sensitive to disturbance. This site covers an area of 576Ha and includes component sites to the south west of St Osyth at 'Colne Point', west of Brightlingsea at 'Brightlingsea Marshes', and on the western side 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.

5.38 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 population growth and associated recreational increases in Tendring.

5.39 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. In addition, a ferry operates between the eastern edge of Mersea Island at Mersea Stone in Colchester Borough and St Osyth Point across the channel in Tendring District. 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 16 from Braintree and 8 from Tendring, and 70% of visitors travelled 15 miles or less to visit the site. 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.

5.40 A review of 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. Nevertheless, the visitor monitoring undertaken here confirmed that very few visitors walked in this direction with the majority of visitors using Cudmore Grove and heading west towards West Mersea. As a result, whilst the increased contribution of visitors as a result of population increases associated with the Local Plan, may contribute to increases in recreational pressures at this location, such increases would be expected

to be small and not to result in adverse effects on the sites integrity.

5.41 The Brightlingsea Marshes NNR part of the SPA is also only accessible to permit holders and birds utilising the site, for example for feeding, are therefore also likely to be resilient to the effects of recreational disturbance. However, public access in this area is provided by a public footpath which runs along the seawall between the southwest edge of the NNR and the eastern edge of the saltmarsh, and also by the presence of the Promenade Way Car Park, which incorporates public toilets. The footpath extends from the car park northwards to Wivenhoe and lies within or adjacent to the SPA, passing close to high tide roosts opposite Rat Island and at Aldborough Point. The key findings of the visitor surveys undertaken at this location concluded that there was no significant difference in visitor numbers between winter and spring periods; that 45% of visitors were locals living in Brightlingsea, after which Colchester was the next most frequent place of origin; and that of a total of 310 visitors surveyed, 91 had travelled more than five miles. In addition, the survey revealed that dog walking and walking were the most popular reasons for visiting the site, and 30% of those surveyed stated that they visited the site daily. In light of the current infrastructure at the site, and its appeal of regular dog walkers during winter, the area is likely to be of increased susceptibility to recreational disturbance and increases in visitors associated with housing allocations proposed in the Local Plan. As a result the Local Plan, and in particular the Tendring and Colchester Borders Garden Community, has the potential to result in adverse effects on the integrity SPA/Ramsar as a result of in-combination effects between allocations specified in adjacent authority Local Plans.

5.42 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 publicly 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.

5.43 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 potentially high levels of existing visitor pressure in areas of importance for SPA/Ramsar birds. As a result, this location is likely to be of increased susceptibility to recreational disturbance and increases in visitors associated with housing allocations, and therefore the Local Plan has the potential to result in adverse effects on the Colne Estuary SPA/Ramsar as a result of additional recreational pressures at this location in the absence of mitigation and avoidance.

5.44 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.

5.45 The effect of water-based recreation and powered paragliding 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 months when impacts to the wintering and passage bird features are unlikely, the increase in such activities as a result of the 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 Colne 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.

5.46 Workshops with local experts as part of the discussion on potential mitigation solutions for the Essex Coast RAMS, identified that powered paragliders currently take off from a field on Mersea Island. The power gliders occasionally fly low and fly over the Colne and Blackwater SPAs with potential to disturb qualifying bird species.

5.47 In terms of in-combination effects, the Zone of Influence for the Colne Estuary SPA/Ramsar includes the Braintree District and Tendring District and in-combination effects with the Shared Strategic Section 1 Local Plan and Section 2 Local Plans for these Districts have been identified. The HRA's of the Braintree and Tendring Section 2 Local Plans both concluded that they will need to be part of a Recreational Avoidance and Mitigation Strategy (RAMS) for this SPA/Ramsar in partnership with Colchester, and other Essex

Authorities to ensure adverse effects are mitigated, and this is discussed in more detail in the mitigation section below.

5.48 In summary, population growth and increased coastal visitation from new residents as a result of the Local Plan is likely to contribute to increases in both land-based and water-based recreational pressures at the Colne Estuary SPA and Ramsar sites, which have the potential, in the absence of mitigation and avoidance measures, to adversely affect the integrity of the bird qualifying features as a result of the effects of disturbance. Mitigation will be required to ensure adverse effects can be avoided, and this is described in detailed below.

Essex Estuaries SAC

5.49 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.

5.50 In terms of in-combination effects, the Zone of Influence for the section of Essex Estuaries SAC along this part of the UK coastline includes Braintree District and Tendring District and in-combination effects with Section 2 Local Plans for these Districts and the Shared Strategic Section 1 for Local Plans have been identified. The HRA's of the Braintree and Tendring Section 2 Local Plans both concluded that they will need to be part of a RAMS for this SPA/Ramsar in partnership with Tendring and other Essex Authorities to ensure adverse effects are mitigated.

5.51 In the absence of mitigation and avoidance measures, the predicted increases in recreational activities as a result of the Local Plan, would be expected to increase the prevalence and occurrence of negative activities occurring within the SAC, and could lead to adverse effects on site integrity. As a result, adequate avoidance and mitigation measures will be required as detailed in the mitigation section below.

Stour and Orwell Estuaries SPA and Ramsar

5.52 The Stour and Orwell Estuaries SPA and Ramsar sites are located along the northern edge of Tendring, with a very small part of the SPA falling within Colchester borough. The HRA Screening assessment identified that the Local Plan is likely to result in significant effects on the SPA/Ramsar as a result of increases in recreational disturbance. The Site Improvement Plan (SIP) indicates 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; wildfowling, and military overflight training, whilst some activities, such as powerboating, may produce physical disturbance to habitats.

5.53 The SIP indicates that moderate levels of disturbance in less sensitive locations may have no significant effect on the numbers of birds, but the types, levels and locations of potentially disturbing activities are constantly changing and a better understanding is required of: which species and habitats are most susceptible; which types of activity are most disturbing; and which locations and times of year are most sensitive in order to manage change, with intervention as necessary in order to minimise the risks of disturbance impacts.

5.54 In general, significant housing allocations, which are likely to represent the main source of additional recreational visits to the SPA/Ramsar as a result of the Local Plan, are located several kilometres away from the Stour and Orwell Estuaries SPA/Ramsar. No site allocations are considered to be located within walking distance of the SPA and Ramsar. As a result, the majority of additional visitors originating from the Local Plan are likely to arrive by car, and therefore the provision of alternative open space close to home may represent a useful component measure in helping to mitigate recreational impacts. This is discussed in more detail in the mitigation section below.

5.55 Visitor surveys of the Stour Estuary were completed by Colchester Borough Council between 2010 and 2013 at the Stour Estuary RSPB reserve, and at The Walls in Manningtree. This information is useful in understanding the patterns and purposes of recreational visits to enable accurate predictions of the key sources of impact, and to enable any mitigation and avoidance measures to be suitably focused. As a result, the mitigation and avoidance measures recommended below have been largely based on the visitor monitoring data available for this assessment.

5.56 At the Stour Estuary, the number of visitors varied considerably over the course of the 3 year survey period. In total 217 visitor groups were surveyed and the highest number

of visitors was recorded in winter 2012 (63 groups). There were significantly higher numbers of visitors at the weekend, and over the three years, twice the number of groups visited at the weekend than during the week. A large proportion of visitors to the site travelled from the Harwich area (48%), and the majority of visitors had travelled less than five miles to visit the site. Of the 217 groups surveyed, 35 had travelled over 11 miles to visit, with most of these being at the weekend. Dog walking and walking were the predominant activities and during the week there were more people dog walking and at the weekend the numbers walking and dog walking were virtually the same.

5.57 When asked how frequently people visited the most common answer was less than once a month (54 out of 217), whilst the second most common answer given was 2-6 times a week (44 groups). 34% of visitors said that they do not visit alternative sites regularly and of those that do visit alternative sites regularly, Tendring coastal sites were the most common site visited (57 out of 124) with many visitors citing the beach as the preferred location. 16% of visitors said that they did not have good access to open space close to home. During the spring 2012 survey almost half of people surveyed said that they do not have good access to open space.

5.58 The visitor surveys at The Walls in Manningtree identified that the number of visitors at The Walls varied considerably over the course of the three year survey period. In total 278 groups were surveyed over the three years and there were higher numbers of visitors at the weekend during winter. During all of the spring survey periods the number of weekend and week day visitors was similar. Over the three year survey period a low proportion (12 of the 278) of the groups surveyed said that they were on holiday in the area. Visitors came from a wide range of locations to visit The Walls, principally Tendring District, Colchester Borough and Suffolk. A large number of visitors (114/278) lived in Lawford, Manningtree and Mistley (14, 29 and 71 respectively). 25 were from Colchester, 12 were from Ipswich with the remaining visitors spread around a number of towns and villages. The majority of visitors had travelled less than five miles to visit the site.

5.59 Walking was the predominant activity at The Walls (61% of visitors). Exercise was the second most popular activity (21% of visitors). Dog walking was not as popular here as at other sites in North Essex, with 20% of visitors dog walking. The number of dog walkers was evenly split between the weekday and weekend. Of the 278, 113 visitors cited proximity to home as a reason for visiting. The frequency people visited the site was similar across daily, 2-6 times a week, once a week and less than once a month visitation frequencies.

5.60 The above information, demonstrates that, the majority of visitors to the Stour Estuary, and those visiting regularly live in

close proximity. The results of a Footprint Ecology Study as described above in the Screening stage, resulted in a 13km Zone of Influence being recommended for the Stour and Orwell, within which proposed housing allocations were considered likely to contribute to Likely Significant Effects. This distance incorporates many of the site allocations within Colchester, most notably including the Tendring / Colchester Borders Garden Community where 2,500 homes are proposed in the plan period.

5.61 Walking and dog walking were the primary activities at the site and both of these activities have been recorded as disturbing birds. As a result, they are likely to contribute the greatest proportional source of disturbance to bird species, particularly where such activities occur close to important feeding or roosting areas in locations which are not subject to daily management and wardening. As a result any mitigation and avoidance measures proposed (see below), will need to give particular consideration to mitigating the effects of these sources of disturbance.

5.62 In terms of public access and existing management along the Tendring part of the Stour Estuary (also the part of SPA/Ramsar closest to Colchester), the Essex Way long distance public footpath extends along the majority of the coastline, from Manningtree in the west to Harwich in the East. However, a notable area where public access is restricted by the absence of public rights of way, and via severance and screening from the railway line and industrial zones, occurs between Harwich International Port/Parkeston Quay and the western edge of the Stour Estuary RSPB reserve to the west. This incorporates an extensive area of saltmarsh of key importance for SPA/Ramsar birds including Deep Fleet, Bramble Creek and Copperas Creeks. In addition, much of this area is located within the RSPB's Stour Estuary reserve, which is managed to protect the birds from disturbance, including a ban on dogs within most of the reserve, provision of on-site wardening, and use of barriers, screens and bird hides to manage visitor movements. As a result, disturbance of SPA/Ramsar qualifying birds is less likely at these locations.

5.63 In addition to the above, Essex Wildlife Trust manages the Wrabness Nature Reserve which overlooks the saltmarsh and mudflats at Jacques Bay. Again, this site is managed to minimise potential disturbance to birds, including dogs being permitted only when under close control, wardening on site and provision of screening along the sea wall including through maintenance of scrub and tree lines.

5.64 The area between Mistley and Nether Hall, which includes Landooze Rill and Ballister Creek is also relatively well protected from terrestrial recreational disturbance due to the absence of PROW's, private land and the railway.

5.65 A review of WeBS data indicates areas of particular importance for SPA/Ramsar birds in locations close to areas where recreational access is high and unmanaged includes in the vicinity of Mistley and Manningtree, which is particularly important for feeding knot, black-tailed godwit, redshank and shelduck. Elsewhere along the Tendring coastline of the Stour Estuary, important bird locations are primarily located adjacent to the locations described above where the probability of recreational disturbance is lower.

5.66 In light of the above, it is likely that the impacts of terrestrial recreation as a result of the Local Plan would be expected to be relatively localised and focused in the vicinity of Mistley and Manningtree and these are likely to be key locations in providing mitigation and avoidance measures. Any mitigation and avoidance proposals will need to be based on latest visitor and bird monitoring data, and align with the Recreational disturbance Avoidance and Mitigation Strategy (RAMS) being produced by the Suffolk authorities of Ipswich, East Suffolk and Babergh.

5.67 The Suffolk Authorities have identified, as part of the HRAs of their Local Plans, similar recreational impacts on the north shore of the Stour and Orwell SPA/Ramsar as those identified in this Appropriate Assessment. In order to comply with the requirements of the Habitat Regulations, and to prepare sound plans they have produced a RAMS which has been informed by visitor monitoring work undertaken by Footprint Ecology. It is expected that these studies will provide a detailed baseline of current visitor patterns, hotspots where disturbance is, or is predicted to be, a key issue, and quantified data which can be used to aid future monitoring, and will set out detailed information relating to the existing recreational pressures on the north shore of the SPA/Ramsar, and will set out mitigation and avoidance proposals including locations, methods and funding mechanisms. As a result, this information will be crucial in informing the preparation and delivery of similar mitigation and avoidance measures required as part of the Shared Strategic Section 1 Local Plan and Section 2 Local Plans to ensure adverse effects on integrity associated with recreation are avoided.

5.68 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 Stour Estuary, marinas and launch sites within or closest to Colchester borough occur at Manningtree and Mistley. Additional tidal boat moorings are scattered throughout the estuary and the primary recreational marinas are located in the northern part of the SPA, associated with the Orwell Estuary at sites including Ipswich, Suffolk Yacht Harbour at Stratton Hall, Shotley Gate, and Wolverston Marina's where visitors from Colchester borough are less likely due to the

travel distance involved. These marinas are located a considerable distance from the site allocations proposed in the Local Plan and the plan is therefore considered unlikely to result in noticeable increases in the use of these facilities.

5.69 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 months when impacts to the wintering and passage bird features are unlikely, the increase in such activities as a result of the Local Plan is considered likely to be small. Nevertheless, to enable a sufficient level of certainty that the Local Plan will not result in adverse effects on the Stour and Orwell Estuaries 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 delivered primarily by marinas and leisure operators. This should be incorporated in any Recreation Avoidance and Mitigation Strategy and is considered in more specific detail in the mitigation section below.

5.70 In terms of in-combination effects, a 13km Zone of Influence for the Stour and Orwell Estuary has been identified, which includes the Suffolk authorities, Tendring District and Colchester Borough. The Suffolk authorities are mitigating for in-combination effects via the Suffolk RAMS described above and are therefore not predicted to result in in-combination effects on the SPA/Ramsar as a result of recreational effects. Visitor monitoring at the SPA/Ramsar concluded that significant proportions of visitors originated from Tendring District, and to a lesser extent from Colchester Borough. As a result it is concluded that these authorities will be required to prepare and implement a RAMS to mitigate for the impacts described above.

5.71 In summary, population growth and increased coastal visitation from new residents as a result of the Local Plan is likely to contribute to increases in both land-based and water-based recreational pressures at the Stour and Orwell Estuaries SPA/Ramsar sites, which have the potential, in the absence of mitigation and avoidance measures, to adversely affect the integrity of the site's bird qualifying features as a result of the effects of disturbance. Mitigation will be required in the form of a RAMS to ensure adverse effects can be avoided, and this is described in detail below.

Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar

5.72 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.

5.73 All allocations in the Local plan are within the 22km Zone of Influence for this SPA and Ramsar. The Tendring and Braintree Section 2 Local Plans identified no potential adverse effects on European sites in isolation, however there is potential for adverse effects on site integrity as a result of the in-combination effects between site allocations within the Zone of Influence, particularly those in closer proximity such as at West Mersea and Abberton.

5.74 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 residents of the borough to partake in activities with potential to disturb birds.

5.75 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 months when impacts to the wintering and passage bird features are unlikely, the increase in such activities as a result of the Local Plan is considered likely to be small.

5.76 Workshops with local experts as part of the discussion on potential mitigation solutions for the Essex Coast RAMS, identified that powered paragliders currently take off from a field on Mersea Island. The power gliders occasionally fly low and fly over the Colne and Blackwater SPAs with potential to disturb qualifying bird species.

5.77 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.

5.78 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 the 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 Zone of Influence, including at West Mersea and Abberton 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.

5.79 In terms of in-combination effects, the Zone of Influence for the Blackwater Estuary SPA/Ramsar includes the North Essex Authorities of Braintree District and Colchester Borough. The HRA of the Braintree Section 2 Local Plan concluded that they will need to be part of a RAMS for this SPA/Ramsar in partnership with Colchester to ensure adverse effects are mitigated, and this is discussed in more detail in the mitigation section below.

5.80 In summary, population growth and increased coastal visitation from new residents as a result of the Local Plan is likely to contribute to increases in both land-based and water-based recreational pressures at the Blackwater Estuary SPA and Ramsar sites, which have the potential, in the absence of mitigation and avoidance measures, to adversely affect the integrity of the bird qualifying features as a result of the effects of disturbance. Mitigation will be required to ensure adverse effects can be avoided, and this is described in detailed below.

Dengie SPA and Ramsar

5.81 Whilst the ZOI for these Sites extends in Colchester, the potential for the Local Plan to contribute to potential adverse effects on integrity through recreational impacts is considered unlikely because the European sites are separated from the Borough by the River Blackwater and the distance that visitors would need to travel to visit the SPA and Ramsar would be considerably greater than 20.8km.

5.82 In summary, population growth and increased coastal visitation from new residents as a result of the Local Plan is unlikely to contribute to increases in both land-based and water-based recreational pressures at these European Sites and therefore no adverse effects on integrity are predicted either alone or in-combination.

Consideration of the England Coastal Path

5.83 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 at the 'determine' stage. It is reasonable 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.

5.84 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 Recreational disturbance Avoidance and Mitigation Strategy outlined below will require close consultation and agreement with Natural England.

Mitigation

Bird Aware Essex Coast (Essex Coast Recreational disturbance Avoidance & Mitigation Strategy (RAMS))

5.85 This assessment has identified that recreational impacts to the Colne Estuary SPA/Ramsar, Essex Estuaries SAC, the Stour and Orwell Estuaries SPA/Ramsar and Blackwater Estuary SPA/Ramsar would, in the absence of mitigation and avoidance measures, be expected to result in adverse effects on the integrity of these sites, either alone, or in-combination with other plans and projects. As a result, at an early stage in the iterative HRA process it was recommended that additional mitigation and avoidance measures in the form of a Recreational disturbance and Avoidance and Mitigation Strategy (RAMS) would be needed and agreed with Natural England prior to adoption of the Local Plan to ensure adverse effects on integrity (AEOI) are avoided. A commitment to the successful delivery and implementation of a RAMS was made by Colchester Borough Council in 2017 and included within the Local Plan to ensure that the plan is sound.

5.86 The need for a Recreational disturbance Avoidance and Mitigation Strategy (RAMS) was identified at an early stage in

the iterative HRA process. Further consideration was given to this at the appropriate assessment stage, partly to reflect that mitigation measures must be considered at the appropriate assessment stage and also as examples of mitigation strategies elsewhere have continued to emerge and the conservation community continue to share good practice.

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

5.88 A RAMS SPD was consulted on in January-February 2020. The SPD has now been finalised and Natural England have confirmed that they endorse the SPD. Colchester Borough Council have now adopted the SPD.

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

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

5.91 Relevant examples include the Recreation Avoidance and Mitigation Strategy which is currently being prepared as a strategic document by the Suffolk Authorities of Ipswich, East Suffolk 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 being prepared by Shepway and Rother Districts to mitigate recreational impacts of their Local Plans on the Dungeness SAC/SPA/Ramsar; Bird Aware Solent to mitigate recreational impacts of Local Plans on European sites around the Solent and the Thames Basin Heaths Delivery Framework, which sets out the mitigation requirements to enable development within a Zone of Influence around the Thames Basin Heaths SPA.

5.92 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 in Essex. 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, which has been endorsed by Local Plan Inspectors.

5.93 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 easily 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 recreation 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.

5.94 In light of the above, and through close liaison with Natural England during the preparation of their Section 2 Local Plans and the Shared Strategic Section 1 Local Plan, the North Essex Authorities together with other 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, Essex LPAs agreed to prepare and implement RAMS for all Essex coastal European sites. The broad principles of what is required as part of the RAMS is set out in this section.

Mechanisms of funding and delivery

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

5.96 The RAMS will be delivered through an SPD. A RAMS SPD was consulted on in January-February 2020. The SPD has now been finalised and Natural England have confirmed that they endorse the SPD which has now been adopted by Colchester Borough Council.

5.97 The RAMS approach follows a meeting between the North Essex Authorities, LUC and Natural England (8th February 2017), at which Natural England recommended that the NEAs prepare and deliver a RAMS for the relevant European sites. This was widened to include all Essex coastal sites and 12 Greater Essex LPAs and work commenced on the Essex Coast RAMS in 2017. This

approach has been used successfully elsewhere such as the Thames Basin Heaths SPA Avoidance and Mitigation SPD (TBH SPD), which was developed to provide guidance to ensure that new development does not have adverse effects on this SPA which is designated for heathland birds susceptible to recreational pressures.

5.98 The TBH SPD has been adopted by eleven local authorities which incorporate the SPA's Zone of Influence and involves an approach to mitigation which includes i) provision of Suitable Alternative Natural Greenspace (SANGs), and ii) Access Management. The TBH SPD provides a specific approach to access management and it is recommended that the RAMS produced by the 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.

5.99 As per the TBH SPD, it was recommended that RAMS for the above European sites include access management which is funded by a charge levied on developer contributions which includes an allowance for the cost of this service, and that the charge collected in relation to access management measures are pooled for strategic allocation.

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

Provision of Visitor Surveys

5.101 To ensure that RAMS continues to be based upon up-to-date information, it is recommended that regular visitor monitoring is undertaken as part of the RAMS. The initiation and frequency of such monitoring should be agreed with Natural England in preparing the RAMS. 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. It is therefore predicted that such information will be available but, to ensure certainty, a commitment will be required by the

Essex Coast RAMS partner authorities that in the event that suitably up to date bird survey data is not available, albeit unlikely, they will undertake equivalent survey work to inform the RAMS.

Provision of open space and green infrastructure

5.102 During a meeting on 8th February 2017 between the North Essex Authorities, LUC and Natural England, it was broadly agreed by all parties that given the unique nature and attraction of these coastal European sites, the focus of the RAMS should primarily be on access management and monitoring as described below.

5.103 Nevertheless, 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. And therefore the strategic approach to incorporating protective measures specified in the Shared Strategic Section 1 Local Plan is considered likely to provide an effective contribution in mitigating significant effects associated with recreation.

5.104 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 has focused towards attracting those groups of visitors who regularly visit the European Sites. This primarily includes walkers and dog walkers.

5.105 The Local Plan includes requirements to meet open space and GI standards including Policy DM18 which requires at least 10% of gross site areas to be delivered as useable public open space. The Local Plan also includes Policy ENV3 which promotes the Colchester orbital route which comprises both the inner and outer orbital which is an interlinked multi-user access route around urban Colchester and also links into existing green corridors such as the Wivenhoe Trail and Rowhedge Trails and link with nature reserves etc.

5.106 Despite the commitment of minimum standards for open space and protection and enhancement of GI, in order for such measures to effectively contribute towards mitigating recreational impacts at European sites, the design and management of GI and open space will need to be specifically designed and managed to provide a desirable alternative location for the regular daily activities typically undertaken by local residents at European Sites, including most notably walking and dog walking. This can be achieved by ensuring that the management of such sites is specifically targeted towards ensuring that these target groups are provided for.

For example, sites which provide 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.

5.107 As discussed previously, the attraction of the coastline is strong and therefore provision of alternative open space is likely to be less effective for those allocations located in close proximity to accessible parts of the European sites. No such site allocations occur within Colchester, and therefore it is recommended that strategic provision of GI and high quality open space is targeted towards the larger strategic housing allocations including the Tendring and Colchester Borders Garden Community and Middlewick Range, where their distance is such that visits to the European Sites will typically involve driving. As a result, if well designed, there is likely to be an opportunity for open space at such sites to attract regular dog walkers and walkers instead of visiting the European sites.

5.108 The size of these sites will also enable greater flexibility in their design and masterplanning at the project stage will enable these sites to provide the range of features required to maximise attractiveness to the target groups described above.

5.109 Policy DM18: Provision of Public Open Space states:

"The provision of open space helps to alleviate recreational pressure on sites of high nature conservation value (e.g. European sites) and also increases opportunities for participation in healthy lifestyles".

Watercraft and Powered Paragliding disturbance - Code of Conduct

5.110 Water-based and powered paragliding 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, both air and water 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.

5.111 It is difficult to manage and monitor the location and frequency of such activities because they are less predictable and take place in inaccessible locations. As a result, it is recommended that the most appropriate means of reducing the frequency and severity of such activities is by promoting a Code of Conduct and encouraging increased self-regulation

from participants. This could be achieved via an education and awareness campaign targeted at the leisure operators, marinas, sailing clubs and holiday parks, in addition to quaysides, jetties and other launch sites. Such an approach could be undertaken via promotional leaflets, posters and signage.

5.112 With regard to powered paragliding, Natural England has confirmed that it has met with paramotor users on the Colne and Blackwater Estuaries to explain the impacts their sport can have if not undertaken responsibly. Guidance was also provided on how they can avoid disturbing birds whilst flying. Natural England confirmed that as a result of this meeting the users were likely to be more aware of their responsibilities and are self-policing the sport locally where possible.

5.113 Natural England is looking to undertake a similar approach with Jet skiers and the Essex Coast RAMS can build on this approach already taken forward by Natural England staff. A code of conduct would form a key aspect of supporting responsible behaviour and reducing the potential effect of powered paragliding and other recreational activities.

5.114 A code of conduct would not guarantee the avoidance of AEoI on its own, but it would certainly provide an important role in encouraging people to undertake recreational activities responsibly, particularly if promoted by RAMS rangers and linked to penalties and enforcement as is intended.

5.115 A code of conduct approach is not intended to mitigate for the small proportion of irresponsible people, but rather to educate and inform the majority of people who are keen to act in responsible and sensitive manner. Indeed, most forms of disturbance to are likely to be a result of ignorance rather than malice, therefore, whilst such measures will never be solely effective at eliminating potential impacts, they have a key role to play in contributing to the effectiveness of overall mitigation and avoidance, and therefore education through a code of conduct should be recognised as a key component to the Essex Coast RAMS.

5.116 Importantly, given the specialist nature of these activities, increases associated with the Local Plans is likely to be minor, and when this is coupled with the current absence of an Essex Coastal RAMS or similar mechanism for education and policing, the mitigation measures proposed are considered likely to represent a significant improvement relative to the current baseline level of impact.

On site management and monitoring

5.117 The European sites are managed by Natural England, Essex Wildlife Trust and the RSPB, and therefore the RAMS was 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 maximise the benefit of the measures proposed in mitigating recreational impacts. This was achieved via workshops for the specific European sites which included appropriate stakeholder representatives such as site managers and area advisers.

5.118 Detailed management measures are provided in the RAMS and have been specifically informed via the workshops and consultation described above. Recommended aspects for inclusion within the RAMS were informed by earlier iterations of this HRA and the Section 1 HRA and included, but were 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 recreation.
- Habitat management and enhancement to provide locations for birds away from disturbance sources (e.g. high tide roosts).

5.119 As described above, to ensure that the RAMS continues to be based upon up-to-date information, regular monitoring will be required. 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 Essex Coast RAMS partner authorities 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.

Update on Bird Aware Essex Coast

5.120 As previously explained in this HRA report, the need for a Recreational disturbance Avoidance and Mitigation Strategy (RAMS) was identified at an early stage in the iterative HRA process. Further consideration was given to this at the appropriate assessment stage, partly to reflect that mitigation measures must be considered at the appropriate assessment stage and also as examples of mitigation strategies elsewhere have continued to emerge and the conservation community continue to share good practice.

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

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

In-combination Effects

5.123 Recreational impacts by their very nature are in-combination effects. The avoidance and mitigation provided by the Bird Aware Essex Coast described above will not only ensure that the Local Plan does not contribute to additional recreational impacts, but will also ensure that Colchester Borough contributes towards reducing the effect of existing recreational pressure on European Sites. Therefore there is no mechanism by which in-combination effects could occur with other plans and projects.

Conclusion

The delivery of the Essex Coast RAMS, or its brand name Bird Aware Essex Coast, is strengthened by the addition of several new paragraphs in the Section 1 Local Plan within the RAMS section which set out measures which will be required prior to effects occurring (MM5), and the new Policy SP1A (MM6) and proposed modifications to the Section 2 Local Plan to include a new RAMS policy, which sets out how the RAMS will be delivered through contributions secured from development. This ensures certainty of regular monitoring and provides a mechanism which has the flexibility to adapt to findings and

pre-empt and remedy impacts before they have the potential to affect integrity. The Section 1 Local Plan Inspector concluded that the RAMS provision for monitoring its effectiveness, which it is intended will feed back into the mitigation measures in an iterative fashion, enabling adjustments and improvements to be made in response to evidence of how successful the measures are is a strength of the RAMS approach.

5.124 The RAMS is considered to provide an effective form of mitigation and avoidance for recreational pressures arising from the Local Plan.

5.125 Given that the Colchester Borough Council have prepared and adopted the Essex Coast RAMS in close consultation with Natural England and other key stakeholders, and have embedded the delivery and monitoring of the RAMS in specific policy commitments **there is sufficient certainty that the Local Plan, incorporating the proposed Main Modifications, will not result in adverse effects on the integrity of the Stour and Orwell Estuaries SPA/Ramsar, Essex Estuaries SAC, Colne Estuary SPA/Ramsar, or Blackwater Estuary SPA/Ramsar, either alone or in combination with other plans and projects as a result of recreation.**

Water Quantity and Quality

Stour and Orwell Estuaries SPA / Ramsar

5.126 The HRA Screening identified that the Local Plan has potential to result in significant adverse effects on the Stour and Orwell Estuaries SPA and Ramsar as a result of changes in water quality.

5.127 The Water Cycle Study (WCS) for Colchester (2016) identified Langham Water Recycling Centre (WRC) as being over capacity and there may be subsequent implications for receiving water bodies in terms of water quality, including the Stour Estuary. This WCS concluded that solutions are required in order to accommodate the growth to ensure that the increased wastewater flow discharged does not impact on the current quality of the receiving watercourses, their associated ecological sites and also to ensure that the watercourses can still meet with legislative requirements.

Mitigation

5.128 The Local Plan includes the following wording in relation to Policy SS9 (Langham): "*Development should not*

commence until adequate waste water and sewage treatment capacity is available to serve the new housing".

5.129 In addition, Policy PP1 in the Local Plan includes the following commitment to avoiding water quality/quantity impacts: "*proposals must, as relevant, address all of the following Borough wide requirements: Adequate wastewater treatment and sewage infrastructure enhancements for the relevant catchment area; and Appropriate SuDS for managing surface water runoff within the overall design and layout of the site*". In their representation to the Section 2 Local Plan, the Environment Agency said: "*We are supportive of the thrust of this policy and the supporting text.*" Anglian Water Services said in their representation: "*Policy PP1 refers to proposals demonstrating that adequate wastewater treatment and sewerage enhancements are provided where necessary which is supported.*"

5.130 Additional safeguards are also provided by the Strategic Section 1 Local Plan including a new paragraph to policy SP5 on Water and Waste water (mod reference 15) and additions to policies SP7 and SP8 (mod reference 22, 36 & 37). These provide an appropriate policy framework to ensure that proposed development will not have an adverse effect on the integrity of European sites as a result of changes in water quantity and quality.

In-combination Effects

5.131 The overall quantum of proposed housing growth on North Essex was also assessed as part of the Strategic Section 1 Local Plan. The Integrated Water Management Strategy (IWMS), considered the maximum potential growth of all three proposed garden communities (43,720 dwellings at NEAGC1, NEAGC2 and NEAGC3, 2017 estimate), and identified that additional water demand from proposed growth could be accommodated beyond the plan period through a combination of strategic supply options, demand reduction and water efficiency measures. As a result, the HRA of the Section 1 Local Plan concluded with certainty a conclusion of no adverse effect on integrity.

5.132 As evidenced in the Statements of Common Ground with Anglian Water Services and the Environment Agency³⁴ and Natural England³⁵ for the Section 1 Local Plan, the conclusion was supported by these statutory consultees. The Section 1 Local Plan Inspector concluded that: "*requiring adequate waste water treatment capacity to be provided before dwellings are occupied, will ensure that no adverse impact on any European site will occur as a result of changes in water quality.*"

³⁴ Strategic Section 1 Local Plan Examination – document reference SCG/002a

³⁵ Strategic Section 1 Local Plan Examination – document reference SCG/002a

5.133 Changes in water quality and quantity are by their very nature in-combination effects. The avoidance and mitigation safeguards committed to will ensure that the Local Plan does not contribute to changes in water quantity and quality and there is therefore no mechanism by which in-combination effects could occur with other plans and projects.

Conclusion

5.134 Providing the above policy wording is implemented successfully, adverse effects on the integrity of the Stour and Orwell Estuaries SPA and Ramsar as a result of water

quantity and quality, either alone or in-combination, will be avoided.

Summary of Appropriate Assessment

5.135 Table 5.6 summaries the conclusions of the Appropriate Assessment. The European sites that are shown as screened out with no colour indicate sites that were considered to have no likely significant effect at the screening stage. The European sites highlighted as having no AEoI in grey were found to have no AEoI providing the mitigation measures detailed in Chapter 5 are implemented.

Table 5.6: Summary of the Conclusion of the Appropriate Assessment

European sites	Physical Damage and Loss	Non-physical Disturbance	Air Pollution	Recreation	Water Quantity and Quality
Essex Estuaries SAC	Screened out	Screened out	Screened out	No AEoI	Screened out
Hamford Water SAC	Screened out	Screened out	Screened out	Screened out	Screened out
Hamford SPA and Ramsar	Screened out	Screened out	Screened out	Screened out	Screened out
Abberton Reservoir SPA and Ramsar	No AEoI	Screened out	Screened out	No AEoI	Screened out
Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar	No AEoI	Screened out	Screened out	No AEoI	Screened out
Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar	No AEoI	Screened out	Screened out	No AEoI	Screened out
Stour and Orwell Estuaries SPA and Ramsar	No AEoI	Screened out	Screened out	No AEoI	No AEoI
Dengie (Mid-Essex Coast Phase 1) SPA and Ramsar	Screened out	Screened out	Screened out	No AEoI	Screened out
Outer Thames Estuary SPA	Screened out	Screened out	Screened out	No AEoI	Screened out
Foulness (Mid-Essex Coast Phase 5) SPA and Ramsar	Screened out	Screened out	Screened out	Screened out	Screened out
Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA and Ramsar	Screened out	Screened out	Screened out	Screened out	Screened out

Chapter 6

Conclusions and Next Steps

6.1 At the Screening stage, Likely Significant Effects (LSEs) on European sites, either alone or in combination with other policies and proposals, were identified for Local Plan policies:

- Policy SG2: Housing Delivery
- Policy SG3: Economic Growth Provision
- Policy SG4: Local Economic Areas
- Policy TC3: Town Centre Allocations
- Policy NC1: North Colchester and Severalls Strategic Economic Area
- Policy NC2: North Station Special Policy Area
- Policy SC1: South Colchester Allocations
- Policy SC2: Middlewick Ranges
- Policy EC1: Knowledge Gateway and University of Essex Strategic Economic Area
- Policy EC2: East Colchester / Hythe Special Policy Area
- Policy EC3: East Colchester
- Policy WC1: Stanway Strategic Economic Area
- Policy WC2: Stanway
- Policy WC4: West Colchester
- Policy SS1: Abberton and Langenhoe
- Policy SS2: Boxted
- Policy SS3: Chappel and Wakes Colne
- Policy SS4: Copford
- Policy SS5: Eight Ash Green
- Policy SS6: Fordham
- Policy SS7: Great Horkesley
- Policy SS8: Great Tey
- Policy SS9: Langham
- Policy SS10: Layer de la Haye
- Policy SS11: Marks Tey
- Policy SS12a: West Mersea

- Policy SS12b: Coast Road, West Mersea
- Policy SS12c: Mersea Island Caravan Parks
- Policy SS13: Rowhedge
- Policy SS14: Tiptree
- Policy SS15: West Bergholt
- Policy SS16: Wivenhoe
- Policy OV1: Development in Other Villages
- Policy DM6: Economic Development in Rural Areas and the Countryside

6.2 The findings of the HRA screening determined that impacts from physical damage and loss, recreation and water quantity and quality could result in a likely significant effect in relation to:

- **Physical damage and loss (Offsite)** – in relation to Abberton Reservoir SPA and Ramsar, Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar, Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar, Stour and Orwell Estuaries SPA and Ramsar.
- **Recreation** – in relation to Essex Estuaries SAC, Abberton Reservoir SPA and Ramsar, Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar, Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar, Dengie SPA and Ramsar, Stour and Orwell Estuaries SPA and Ramsar, Outer Thames Estuary SPA.
- **Water Quantity and Quality** – in relation to Stour and Orwell Estuaries SPA and Ramsar.

6.3 The Appropriate Assessment stage identified whether the above likely significant effect will, in light of mitigation and avoidance measures, result in adverse effects on the integrity (AEol) of the European sites either alone or in-combination with other plans or projects. The findings of the Appropriate Assessment are detailed below.

6.4 It can be concluded that no AEol will occur for the following European sites subject to the provision of safeguarding and mitigation measures as detailed in Chapter 5.

- **Physical Damage and Loss** – the appropriate assessment concluded no AEol as a result of physical damage and loss to all European sites providing the following safeguards and mitigation measures were implemented. Detail of this is provided below.
- **Recreation** – the appropriate assessment concluded no AEol as a result of increased recreational pressure in

relation to all European sites providing the following safeguards and mitigation measures. Detail of this is provided below.

- **Water Quantity and Quality** – the appropriate assessment concluded that given the safeguards provided by policies SS9 and PP1, no AEol is predicted as a result of water quantity and quality in relation to Stour and Orwell Estuaries SPA and Ramsar.

Key Steps and Recommendations

6.5 Following the HRA of the Local Plan, the following key steps and recommended safeguards and mitigation measures were identified:

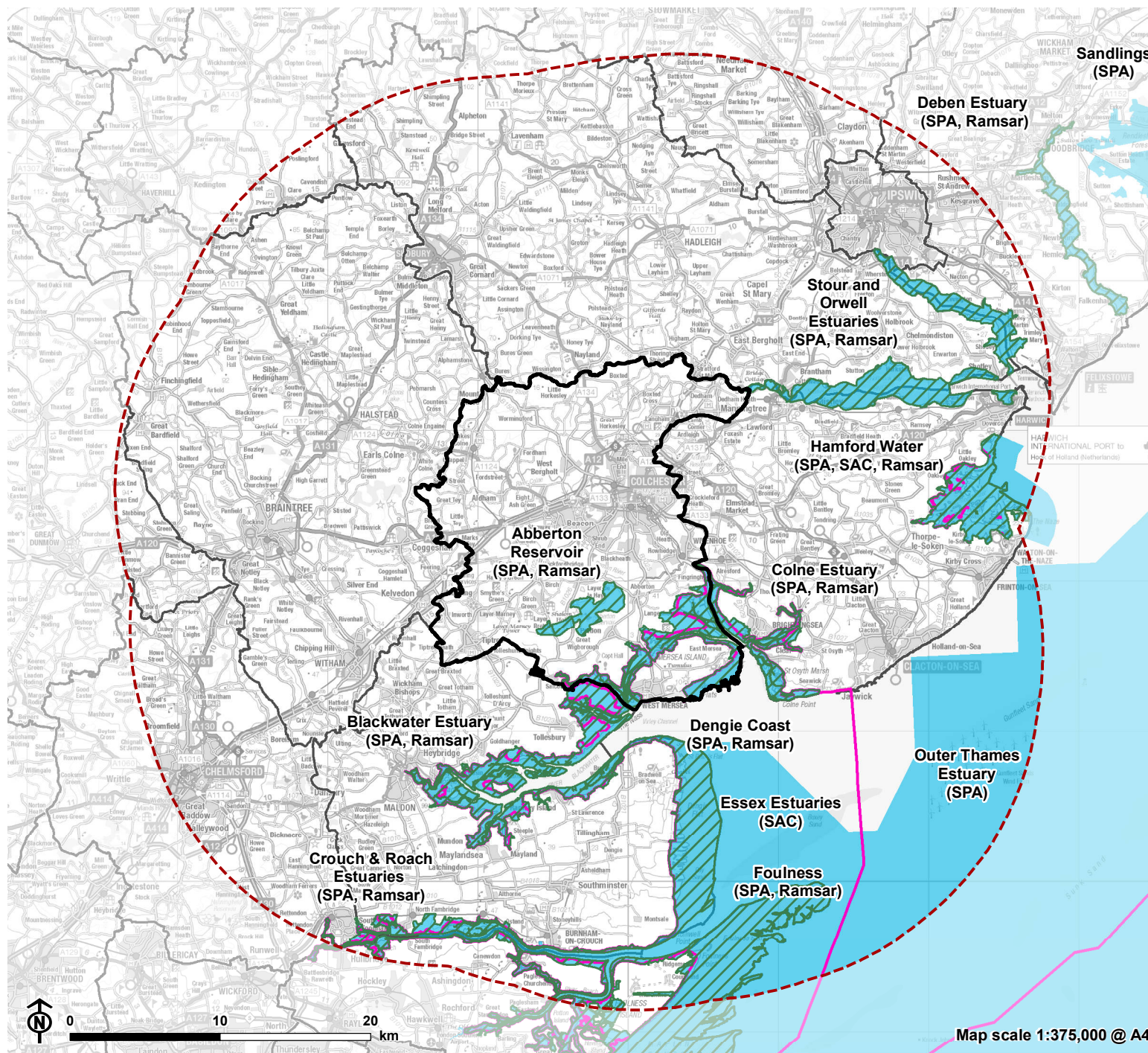
- **Physical Damage and Loss (Offsite)** – it is recommended that the Local Plan commits to include the provision of the following mitigation measures:
 - Wintering Bird Surveys for sites identified with high and moderate suitability to support qualifying bird species to inform the importance of the site for these birds and to inform specific mitigation measures.
 - If the bird surveys identify that proposed new development will exceed the threshold of significance mitigation will be required. A commitment in the Local Plan to mitigate development following the completion of wintering bird surveys is therefore required.
- **Recreation** – Colchester Borough Council has signed up to and is a key partner in the Essex Coast RAMS/ Bird Aware Essex Coast recreational mitigation strategy, this mechanism is supported by Natural England as ensuring that AEol to European Sites will be avoided through the Local Plan. The strategy has also been found robust and appropriate through the NEAs Section 1 Local Plan Examination in Public and Chelmsford City Council's Local Plan Examination. It therefore provides certainty that AEol will be avoided.
- **Water Quantity and Quality** – existing avoidance and policy commitments are considered sufficient to avoid AEol on European Sites.

6.6 This report will be subject to consultation with Natural England to confirm continued support of the conclusions reached.

Appendix A

Figures

Figure 1: European sites within 20km of Colchester Borough



This map illustrates the Essex Estuaries (SAC) and surrounding areas. The map shows the Blackwater Estuary (SPA, Ramsar), the Colne Estuary (SPA, Ramsar), and the Stour and Orwell Estuaries (SPA, Ramsar). The Abberton Reservoir (SPA, Ramsar) is also shown. The map includes a scale bar (0 to 10 km) and a north arrow. The map scale is 1:250,000 @ A.

— Strategic road

European sites

☐ Special Areas of Conservation

 Special Protection Area

 Ramsar

Appendix B

European Site Information

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)³⁶ and the Standard Data Forms or Ramsar Information Sheets available from the JNCC website³⁷. Site conservation objectives are drawn from Natural England's website and are only available for SACs and SPAs.

Site Name	Area (ha)	Qualifying Features	Key vulnerabilities	Conservation Objectives	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
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"> ■ Estuaries ■ Mudflats and sandflats not covered by seawater at low tide ■ Salicornia and other animals colonising mud and sand ■ Spartina swards (<i>Spartinion maritima</i>) ■ Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) ■ Mediterranean and thermo-Atlantic halophilous scrubs <p>Annex 1 habitats present as a qualifying feature:</p>	<p>Coastal squeeze – 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, '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.</p> <p>Fisheries: Commercial marine and estuarine – Shellfish dredging over subtidal habitats has been identified as an Amber activity and is considered a high priority for assessment and development of possible management for the site.</p> <p>Bottom towed fishing gear has been categorised as a 'Red' for the interest features listed, specifically the seagrass beds <i>Zostera</i> spp, a sub-feature of the SAC.</p> <p>Planning Permission: general – 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</p>	<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"> ■ 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>Subject to natural change, to maintain or restore:</p> <ul style="list-style-type: none"> ■ The extent and distribution of the habitats of the qualifying features; 	<p>Habitat -</p> <p>The qualifying habitats of the SAC are reliant a range of coastal factors, including salinity, sedimentation, tide, sea level, turbidity and elevation, which influence the interdependent intertidal, subtidal and terrestrial habitats. These factors influence the complex interdependent intertidal, subtidal and terrestrial habitats present along the coast.</p> <p>Additional factors are provided below for each habitat (where relevant).</p> <p>Sandbanks which are slightly covered by sea water all the time</p> <p>Reef-building species such as <i>Sabellaria spinulosa</i> help to stabilise the sediment, allowing the colonisation of sessile animals.</p>

³⁶ Site Improvement Plans: East of England, Natural England, <http://publications.naturalengland.org.uk/category/4873023563759616>

³⁷ JNCC Data Forms <http://jncc.defra.gov.uk/default.aspx?page=4>

Site Name	Area (ha)	Qualifying Features	Key vulnerabilities	Conservation Objectives	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
		<ul style="list-style-type: none"> Sandbanks which are slightly covered by seawater all the time 	<p>different habitats, species and locations to different types of development.</p> <p>Invasive species – 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.</p> <p>Fisheries: Recreational marine and estuarine – Recreational bait digging may damage the intertidal mudflats and sandflats and associated sub-features and communities, such as eelgrass beds. The extent of the activity and potential impacts on site features are not currently well understood.</p> <p>Air Pollution: risk of atmospheric nitrogen deposition - 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>	<ul style="list-style-type: none"> The structure and function of the habitats of the qualifying features; The supporting processes on which the habitats of the qualifying features rely; The populations of the qualifying features; <p>The distribution of the qualifying features within the site.</p>	
<p>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 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>					

Site Name	Area (ha)	Qualifying Features	Key vulnerabilities	Conservation Objectives	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
Stour and Orwell Estuaries SPA	3676.92	<ul style="list-style-type: none"> ■ Annex I species: ■ Over winter: Hen Harrier <i>Circus cyaneus</i> <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"> ■ Black-tailed Godwit <i>Limosa limosa islandica</i> ■ Dunlin <i>Calidris alpina alpina</i> ■ Grey Plover <i>Pluvialis squatarola</i> ■ Pintail <i>Anas acuta</i> ■ Redshank <i>Tringa totanus</i> ■ Ringed Plover <i>Charadrius hiaticula</i> ■ Shelduck <i>Tadorna tadorna</i> ■ Turnstone <i>Arenaria interpres</i> 	<p>Coastal squeeze – 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>Public access/disturbance – 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>Changes in species distribution – 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>Invasive species – 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>Planning permission: General – 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 issues highlighted by the SIP include; a) Assessing the cumulative effects of numerous, small and often 'non-</p>	<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"> ■ The extent and distribution of the habitats of the qualifying features; ■ The structure and function of the habitats of the qualifying features; ■ The supporting processes on which the habitats of the qualifying features rely; ■ The populations of the qualifying features; 	<p>In general, the qualifying bird species of the SPA rely on:</p> <ul style="list-style-type: none"> ■ The sites ecosystem as a whole (see list of habitats below). ■ Maintenance of populations of species that they feed on (see list of diets below). ■ Off-site habitat, which provide foraging habitat for these species. ■ Open landscape with unobstructed line of sight within nesting, foraging or roosting habitat. <p><i>Limosa limosa islandica</i>: Black-tailed Godwit:</p> <ul style="list-style-type: none"> ■ Habitat Preference – Marshy grassland and steppe, and on migration mudflats. ■ Diet - Insects, worms and snails, but also some plants, beetles, grasshoppers and other small insects during the breeding season. <p><i>Calidris alpina alpina</i>: Dunlin</p> <ul style="list-style-type: none"> ■ Habitat Preference – Tundra, moor, heath, and on migration estuaries and coastal habitat.

Site Name	Area (ha)	Qualifying Features	Key vulnerabilities	Conservation Objectives	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
		<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"> ■ Cormorant <i>Phalacrocorax carbo</i>; ■ Pintail <i>Anas acuta</i>; ■ Ringed Plover <i>Charadrius hiaticula</i>; ■ Grey Plover <i>Pluvialis squatarola</i>; ■ Dunlin <i>Calidris alpina alpina</i>; ■ Black-tailed Godwit <i>Limosa limosa islandica</i>; ■ Redshank <i>Tringa tetanus</i>; ■ Shelduck <i>Tadorna tadorna</i>; ■ Great Crested Grebe <i>Podiceps cristatus</i>; ■ Curlew <i>Numenius arquata</i>; ■ Dark-bellied Brent Goose <i>Branta bernicla bernicla</i>; 	<p>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>Air pollution: impact from atmospheric nitrogen deposition – 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>Inappropriate coastal management – 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>Fisheries: Commercial and estuarine – 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>	<ul style="list-style-type: none"> ■ The distribution of the qualifying features within the site. 	<ul style="list-style-type: none"> ■ Diet - Tundra, moor, heath, and on migration estuaries and coastal habitat. <p><i>Pluvialis squatarola</i>: Grey Plover</p> <ul style="list-style-type: none"> ■ Habitat Preference – Tundra, and on migration pasture and estuaries. ■ Diet - In summer, invertebrates and in winter primarily marine worms, crustaceans and molluscs. <p><i>Anas acuta</i>: Pintail</p> <ul style="list-style-type: none"> ■ Habitat Preference – Lakes, rivers, marsh & tundra ■ Diet - A variety of plants and invertebrates. <p><i>Tringa totanus</i>: Redshank</p> <ul style="list-style-type: none"> ■ Habitat Preference – Rivers, wet grassland, moors and estuaries. ■ Diet - Invertebrates, especially earthworms, crane fly larvae (inland) crustaceans, molluscs, marine worms (estuaries). <p><i>Charadrius hiaticula</i>: Ringed Plover</p> <ul style="list-style-type: none"> ■ Habitat Preference – Sandy areas with low vegetation, and on migration estuaries.

Site Name	Area (ha)	Qualifying Features	Key vulnerabilities	Conservation Objectives	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
		<ul style="list-style-type: none"> ■ Wigeon <i>Anas Penelope</i>; ■ Goldeneye <i>Bucephala clangula</i>; ■ Oystercatcher <i>Haematopus ostralegus</i>; ■ Lapwing <i>Vanellus vanellus</i>; ■ Knot <i>Calidris canutus</i>; ■ Turnstone <i>Arenaria interpres</i>. 			<ul style="list-style-type: none"> ■ Diet - Mostly invertebrates, especially insects, molluscs and crustaceans. <p><i>Tadorna tadorna</i>: Shelduck</p> <ul style="list-style-type: none"> ■ Habitat Preference – Coasts, estuaries and lakes. ■ Diet - Mostly invertebrates, especially insects, molluscs and crustaceans. <p><i>Arenaria interpres</i>: Turnstone</p> <ul style="list-style-type: none"> ■ Habitat Preference – On migration beaches and rocky coasts. ■ Diet - Insects, crustaceans and molluscs. <p><i>Phalacrocorax carbo</i>: Cormorant</p> <ul style="list-style-type: none"> ■ Habitat Preference – Larger lakes and coastal. ■ Diet - Fish. <p><i>Podiceps cristatus</i>: Great Crested Grebe</p> <ul style="list-style-type: none"> ■ Habitat Preference – Reed-bordered lakes, gravel pits, reservoirs and rivers. In the winter, they are also found along the coast. ■ Diet - Mostly fish, some aquatic invertebrates especially in summer.

Site Name	Area (ha)	Qualifying Features	Key vulnerabilities	Conservation Objectives	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
					<p><i>Numenius arquata</i>: Curlew</p> <ul style="list-style-type: none"> ■ Habitat Preference –Marsh, grassland and on migration mudflats. ■ Diet - Worms, shellfish and shrimps. <p><i>Branta bernicla bernicla</i>: Dark-bellied brent goose</p> <ul style="list-style-type: none"> ■ Habitat Preference – Tundra, and on migration marshes and estuaries. ■ Diet - Vegetation, especially eel-grass. <p><i>Anas Penelope</i>: Wigeon</p> <ul style="list-style-type: none"> ■ Habitat Preference – Marsh, lakes, open moor, on migration estuaries. ■ Diet - Mostly leaves, shoots, rhizomes and some seeds. <p><i>Bucephala clangula</i>: Goldeneye</p> <ul style="list-style-type: none"> ■ Habitat Preference – Lakes, rivers, and on migration seacoasts. ■ Diet - Insects, molluscs and crustaceans. <p><i>Haematopus ostralegus</i>: Oystercatcher</p> <ul style="list-style-type: none"> ■ Habitat Preference – Sandy, muddy and rocky beaches.

Site Name	Area (ha)	Qualifying Features	Key vulnerabilities	Conservation Objectives	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
					<ul style="list-style-type: none"> ■ Diet - Mussels and cockles on the coast, mainly worms inland. <p><i>Vanellus vanellus</i>: Lapwing</p> <ul style="list-style-type: none"> ■ Habitat Preference – Pasture, arable land, wet meadow, on migration estuaries ■ Diet - Worms and insects. <p><i>Calidris canutus islandica</i>: Red knot</p> <ul style="list-style-type: none"> ■ Habitat Preference – Tundra, and on migration coastal habitat. ■ Diet - In summer, insects and plant material, and in winter inter-tidal invertebrates, esp molluscs. <p><i>Calidris canutus</i>: Knot</p> <ul style="list-style-type: none"> ■ Habitat Preference – Coastal habitat. ■ Diet - Insects and plant material during the summer; and inter-tidal invertebrates, especially molluscs during the winter.
Stour and Orwell Estuaries Ramsar site	3676.92	Ramsar criterion 2 Contains seven nationally scarce plants:	Similar to Stour and Orwell Estuaries SPA (See above). A key threat identified by RIS was erosion. Erosion – 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	None available.	Plants Plant communities are reliant on the coastal habitats within the Ramsar site. These habitats are dependent on a range of coastal factors and processes, including salinity,

Site Name	Area (ha)	Qualifying Features	Key vulnerabilities	Conservation Objectives	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
		<ul style="list-style-type: none"> ■ Stiff saltmarsh-grass <i>Puccinellia rupestris</i> ■ Small cord-grass <i>Spartina maritima</i> ■ Perennial glasswort <i>Sarcocornia perennis</i> ■ Lax-flowered sea lavender <i>Limonium humile</i> ■ Eelgrasses <i>Zostera angustifolia</i>, <i>Z. marina</i> and <i>Z. noltei</i>. <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"> ■ Common redshank, <i>Tringa totanus totanus</i>. <p>Species with peak counts in winter:</p>	<p>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.</p>		<p>sedimentation, sea level, turbidity and elevation.</p> <p>Birds</p> <p>Refer to Stour and Orwell Estuaries SPA above.</p>

Site Name	Area (ha)	Qualifying Features	Key vulnerabilities	Conservation Objectives	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
		<ul style="list-style-type: none"> ■ Dark-bellied brent goose, <i>Branta bernicla bernicla</i>; ■ Northern pintail, <i>Anas acuta</i>; ■ Grey plover, <i>Pluvialis squatarola</i>; ■ Red knot, <i>Calidris canutus islandica</i>; ■ Dunlin, <i>Calidris alpina alpina</i> ■ Black-tailed godwit, <i>Limosa limosa islandica</i>; ■ Common redshank, <i>Tringa totanus totanus</i>. 			
<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"> ■ Little Tern <i>Sterna albifrons</i> <p>Over winter -</p>	Coastal Squeeze – 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	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>In general, the qualifying bird species of the SPA rely on:</p> <ul style="list-style-type: none"> ■ The sites ecosystem as a whole (see list of habitats below).

Site Name	Area (ha)	Qualifying Features	Key vulnerabilities	Conservation Objectives	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
		<ul style="list-style-type: none"> ■ Avocet <i>Recurvirostra avosetta</i> ■ Golden Plover <i>Pluvialis apricaria</i> ■ Hen Harrier <i>Circus cyaneus</i> <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"> ■ Dark-bellied Brent Goose <i>Branta bernicla bernicla</i> ■ Redshank <i>Tringa totanus</i> <p>The area qualifies under Article 4.2 of the Directive (79/409/EEC) by regularly supporting at least 20,000 waterfowl</p>	<p>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>Public access /disturbance – 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>Planning permission: general – 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>Changes in species distributions – Declines have occurred in the numbers of some of the waterbird species using the Essex Estuaries SIP area but these may be due to changes in their distributions or population levels at a national or continental scale, possibly linked to climate change.</p> <p>Invasive species – 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. Invasive common cord grass may adversely affect other species and habitats, including feeding and roosting areas of SPA bird species.</p>	<p>Subject to natural change, to maintain or restore:</p> <ul style="list-style-type: none"> ■ The extent and distribution of the habitats of the qualifying features; ■ The structure and function of the habitats of the qualifying features; ■ The supporting processes on which the habitats of the qualifying features rely; ■ The populations of the qualifying features; ■ The distribution of the qualifying features within the site. 	<ul style="list-style-type: none"> ■ Maintenance of populations of species that they feed on (see list of diets below). ■ Off-site habitat, which provide foraging habitat for these species. ■ Open landscape with unobstructed line of sight within nesting, foraging or roosting habitat. <p>Dark-bellied brent goose (Non-breeding); <i>Branta bernicla bernicla</i></p> <ul style="list-style-type: none"> ■ Habitat Preference – Tundra, and on migration marshes and estuaries. ■ Diet - Vegetation, especially eel-grass. <p>Common pochard (Breeding); <i>Aythya ferina</i></p> <ul style="list-style-type: none"> ■ Habitat Preference – Lakes & slow rivers, and on migration also estuaries ■ Diet – Mostly plant material, also small animals. <p>Hen harrier (Non-breeding); <i>Circus cyaneus</i></p> <ul style="list-style-type: none"> ■ Habitat Preference – Moor, marsh, steppe and fields. ■ Diet – Mainly small birds and mammals. <p>Ringed plover (Breeding); <i>Charadrius hiaticula</i></p>

Site Name	Area (ha)	Qualifying Features	Key vulnerabilities	Conservation Objectives	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
			<p>Fishing – 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>Air Pollution: risk of atmospheric nitrogen deposition – 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>		<ul style="list-style-type: none"> Habitat Preference – Sandy areas with low vegetation, and on migration estuaries. Diet – In summer, invertebrates and in winter primarily marine worms, crustaceans and molluscs. <p>Common redshank (Non-breeding); <i>Tringa tetanus</i></p> <ul style="list-style-type: none"> Habitat Preference – Rivers, wet grassland, moors and estuaries. Diet – Invertebrates, especially earthworms, crane fly larvae (inland) crustaceans, molluscs, marine worms (estuaries). <p>Little tern (Breeding); <i>Sterna albifrons</i></p> <ul style="list-style-type: none"> Habitat Preference – Seacoasts, rivers and lakes. Diet – Small fish and invertebrates.
Colne Estuary (Mid-Essex Coast Phase 2) Ramsar site	2701.43	<p>Ramsar criterion 1 The site is important due to the extent and diversity of saltmarsh present.</p> <p>Ramsar criterion 2 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>	Similar to Colne Estuary SPA (above).	None available.	<p>Habitat -</p> <p>Saltmarsh habitat is reliant a range of coastal factors, in particular sedimentary and tidal processes which influence the pattern and development of vegetation. These factors influence the complex interdependent intertidal, subtidal and terrestrial habitats present along the coast.</p>

Site Name	Area (ha)	Qualifying Features	Key vulnerabilities	Conservation Objectives	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
		<p>This site supports a full and representative sequence of saltmarsh plant communities covering the range of variation in Britain.</p> <p>Ramsar criterion 5 Assemblages of international importance: Species with peak counts in winter: 32041 waterfowl (5 year peak mean 1998/99-2002/2003)</p> <p>Ramsar criterion 6 Species/populations occurring at levels of international importance. Qualifying Species/populations (as identified at designation): Species with peak counts in winter:</p> <ul style="list-style-type: none"> ■ Dark-bellied brent goose, <i>Branta bernicla bernicla</i>; ■ Common redshank, <i>Tringa totanus totanus</i>. <p>Species/populations identified subsequent to designation for possible future consideration under criterion 6.</p>			<p>Plants -</p> <p>Plant communities are reliant on the coastal habitats within the Ramsar site. These habitats are dependent on a range of coastal factors and processes, including salinity, sedimentation, sea level, turbidity and elevation.</p> <p>Invertebrates -</p> <p>These species are reliant on the saltmarsh habitat and characteristic flora and fauna that are present within the European site. Key sources of food range from flowering plants, organic matter and other invertebrate species.</p> <p>Birds -</p> <p>Refer to Colne Estuary (Mid-Essex Coast Phase 2) SPA above. Consideration also needs to be given to black-tailed godwit, for which this Ramsar site is designated for;</p> <p>Black-tailed godwit <i>Limosa limosa islandica</i></p> <ul style="list-style-type: none"> ■ Habitat Preference – Marshy grassland and steppe, and on migration mudflats. ■ Diet – Insects, worms and snails, but also some plants, beetles, grasshoppers and other small insects during the breeding season.
Abberton Reservoir is a large water storage reservoir close to the Essex coast. It is one of the most important reservoirs in the country for overwintering waterfowl and also supports substantial aggregations of moulting birds in early autumn and a large colony of tree-nesting cormorants. Causeways divide the reservoir into three sections.					

Site Name	Area (ha)	Qualifying Features	Key vulnerabilities	Conservation Objectives	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
Abberton Reservoir SPA	726.2	<p>Supports the following internationally important waterbird assemblage:</p> <ul style="list-style-type: none"> ■ <i>Podiceps cristatus</i>; Great crested grebe (Non-breeding) ■ <i>Phalacrocorax carbo</i>; Great cormorant (Breeding) ■ <i>Cygnus olor</i>; Mute swan (Non-breeding) ■ <i>Anas penelope</i>; Eurasian wigeon (Non-breeding) ■ <i>Anas strepera</i>; Gadwall (Non-breeding) ■ <i>Anas crecca</i>; Eurasian teal (Non-breeding) ■ <i>Anas clypeata</i>; Northern shoveler (Non-breeding) ■ <i>Aythya ferina</i>; Common pochard (Non-breeding) ■ <i>Aythya fuligula</i>; Tufted duck (Non-breeding) ■ <i>Bucephala clangula</i>; Common goldeneye (Non-breeding) 	<p>Siltation – high sediment load in reservoir inflow due to agricultural practices within catchment.</p> <p>Public access / disturbance – designated waterbirds are vulnerable to human disturbance but well controlled by Essex & Suffolk Water; occasional trespassing and disturbance by low flying aircraft.</p> <p>Planning permission: general – potential future threat to designated waterbirds if farmland providing supporting habitat close to the SPA were lost to development; requires further study.</p> <p>Changes in species distributions – unexplained decline in designated population of cormorant.</p> <p>Bird strike – death of designated mute swans and possibly other species from collision with overhead powerlines near reservoir.</p> <p>Water pollution – 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>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>	<p>With regard to the individual species and/or assemblage of species for which the site has been classified:</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"> ■ The extent and distribution of the habitats of the qualifying features; ■ The structure and function of the habitats of the qualifying features; ■ The supporting processes on which the habitats of the qualifying features rely; ■ The populations of the qualifying features; ■ The distribution of the qualifying features within the site. 	<p>In general, the qualifying bird species of the SPA rely on:</p> <ul style="list-style-type: none"> ■ The sites ecosystem as a whole (see list of habitats below). ■ Maintenance of populations of species that they feed on (see list of diets below). ■ Off-site habitat, which provide foraging habitat for these species. ■ Open landscape with unobstructed line of sight within nesting, foraging or roosting habitat. <p><i>Podiceps cristatus</i>; Great crested grebe (Non-breeding)</p> <ul style="list-style-type: none"> ■ Habitat Preference – Reed-bordered lakes, gravel pits, reservoirs and rivers. In the winter, they are also found along the coast. ■ Diet – Mostly fish, some aquatic invertebrates esp in summer. <p><i>Phalacrocorax carbo</i>; Great cormorant (Breeding)</p> <ul style="list-style-type: none"> ■ Habitat Preference – Larger lakes and coastal habitat.

Site Name	Area (ha)	Qualifying Features	Key vulnerabilities	Conservation Objectives	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
		<ul style="list-style-type: none"> ■ <i>Fulica atra</i>; Common coot (Non-breeding) <i>Pluvialis apricaria</i>; European golden plover (Non-breeding) 	<p>Air Pollution: risk of atmospheric nitrogen deposition – The site is identified as at risk from air pollution as Nitrogen deposition levels exceed the site-relevant critical load for ecosystem protection. However the site's Nitrogen load is likely to be dominated by levels in the water entering the reservoir (mainly from the distant Ouse catchment) rather than direct deposition.</p>		<ul style="list-style-type: none"> ■ Diet – Fish, mostly by diving from surface. <p><i>Cygnus alor</i>; Mute swan (Non-breeding)</p> <ul style="list-style-type: none"> ■ Habitat Preference – Lakes, ponds & rivers. ■ Diet – Aquatic vegetation (to 1m deep), also grazes on land; occasionally takes insects, molluscs, small amphibians. <p><i>Anas penelope</i>; Eurasian wigeon (Non-breeding)</p> <ul style="list-style-type: none"> ■ Habitat Preference – Marsh, lakes, open moor, and on migration also estuaries. ■ Diet – Mostly leaves, shoots, rhizomes, also some seeds. <p><i>Anas strepera</i>; Gadwall (Non-breeding)</p> <ul style="list-style-type: none"> ■ Habitat Preference – Marshes, lakes, and on migration also rivers and estuaries. ■ Diet – Leaves, shoots, mostly while swimming with head under water. <p><i>Anas crecca</i>; Eurasian teal (Non-breeding)</p> <ul style="list-style-type: none"> ■ Habitat Preference – Lakes, marshes, ponds & shallow streams.

Site Name	Area (ha)	Qualifying Features	Key vulnerabilities	Conservation Objectives	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
					<ul style="list-style-type: none"> ■ Diet – Omnivorous, mostly seeds in winter, feeds mostly at night in shallow water. <p><i>Anas clypeata</i>; Northern shoveler (Non-breeding)</p> <ul style="list-style-type: none"> ■ Habitat Preference – Shallow lakes, marsh, reedbed & wet meadow. ■ Diet – Omnivorous, esp. small insects, crustaceans, molluscs, seeds; filters particles with sideways sweeping of bill. <p><i>Aythya ferina</i>; Common pochard (Non-breeding)</p> <ul style="list-style-type: none"> ■ Habitat Preference – Lakes & slow rivers, and on migration also estuaries. ■ Diet – Mostly plant material, also small animals. <p><i>Aythya fuligula</i>; Tufted duck (Non-breeding)</p> <ul style="list-style-type: none"> ■ Habitat Preference – Marshes, lakes, and on migration also rivers, estuaries. ■ Diet – Omnivorous, feeds on mud bottom mostly by diving. <p><i>Bucephala clangula</i>; Common goldeneye (Non-breeding)</p>

Site Name	Area (ha)	Qualifying Features	Key vulnerabilities	Conservation Objectives	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
					<ul style="list-style-type: none"> Habitat Preference – Lakes, rivers, and on migration also seacoasts. Diet – Insects, molluscs and crustaceans, mainly by diving. <i>Fulica atra</i> ; Common coot (Non-breeding) <ul style="list-style-type: none"> Habitat Preference – Lakes, marsh, rivers, and seacoast. Diet – Omnivorous, but mostly aquatic plants.
Abberton Reservoir Ramsar site	726.2	Supports 23787 waterfowl (5 year peak mean 1998/99-2002/2003) including the following internationally important waterbird assemblage: <ul style="list-style-type: none"> Gadwall, <i>Anas strepera strepera</i>; Northern shoveler, <i>Anas clypeata</i>; Eurasian wigeon, <i>Anas Penelope</i>; Mute swan, <i>Cygnus olor</i> Common pochard, <i>Aythya farina</i>; 	Similar to Abberton Reservoir SPA (above).	None available.	Refer to Abberton Reservoir SPA above.

Site Name	Area (ha)	Qualifying Features	Key vulnerabilities	Conservation Objectives	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
		<ul style="list-style-type: none"> ■ Great cormorant, <i>Phalacrocorax carbo carbo</i>; ■ Eurasian teal, <i>Anas crecca</i>; ■ Tufted duck, <i>Aythya fuligula</i>; ■ Common coot, <i>Fulica atra atra</i>; ■ Pied avocet, <i>Recurvirostra avosetta</i>; ■ Ruff, <i>Philomachus pugnax</i>, ■ Black-tailed godwit, <i>Limosa limosa islandica</i>; ■ Spotted redshank, <i>Tringa erythropus</i>, ■ Common greenshank, <i>Tringa nebularia</i>, ■ Common goldeneye, <i>Bucephala clangula</i> 			
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	Qualifying Features (Waterbird assemblage): <ul style="list-style-type: none"> ■ <i>Branta bernicla bernicla</i>; Dark-bellied brent goose (Non-breeding)	Similar to Colne Estuary SPA (above)	With regard to the individual species and/or assemblage of species for which the site has been classified: <ul style="list-style-type: none"> ■ Avoid the deterioration of the habitats of the qualifying features, and the significant 	In general, the qualifying bird species of the SPA rely on: <ul style="list-style-type: none"> ■ The sites ecosystem as a whole (see list of habitats below).

Site Name	Area (ha)	Qualifying Features	Key vulnerabilities	Conservation Objectives	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
		<ul style="list-style-type: none"> ■ <i>Aythya ferina</i>; Common pochard (Breeding) ■ <i>Circus cyaneus</i>; Hen harrier (Non-breeding) ■ <i>Charadrius hiaticula</i>; Ringed plover (Breeding) ■ <i>Pluvialis squatarola</i>; Grey plover (Non-breeding) ■ <i>Calidris alpina alpina</i>; Dunlin (Non-breeding) ■ <i>Limosa limosa islandica</i>; Black-tailed godwit (Non-breeding) ■ <i>Sterna albifrons</i>; Little tern (Breeding) <p>Additional Qualifying Features Identified by the 2001 UK SPA Review:</p> <ul style="list-style-type: none"> ■ <i>Tadorna tadorna</i>; Common shelduck (Non-breeding) ■ <i>Recurvirostra avosetta</i>; Pied avocet (Non-breeding) ■ <i>Charadrius hiaticula</i>; Ringed plover (Non-breeding) 		<p>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"> ■ The extent and distribution of the habitats of the qualifying features; ■ The structure and function of the habitats of the qualifying features; ■ The supporting processes on which the habitats of the qualifying features rely; ■ The populations of the qualifying features; ■ The distribution of the qualifying features within the site. 	<ul style="list-style-type: none"> ■ Maintenance of populations of species that they feed on (see list of diets below). ■ Off-site habitat, which provide foraging habitat for these species. ■ Open landscape with unobstructed line of sight within nesting, foraging or roosting habitat. <p>Dark-bellied brent goose (Non-breeding); <i>Branta bernicla bernicla</i></p> <ul style="list-style-type: none"> ■ Habitat Preference – Tundra, and on migration marshes and estuaries. ■ Diet – Vegetation, especially eel-grass. <p>Common pochard (Breeding); <i>Aythya ferina</i></p> <ul style="list-style-type: none"> ■ Habitat Preference – Open lakes and gravel pits in the summer and large lakes and estuaries during the winter. ■ Diet – Plants and seeds, snails, small fish and insects. <p>Hen harrier (Non-breeding); <i>Circus cyaneus</i></p> <ul style="list-style-type: none"> ■ Habitat Preference – Moor, marsh, steppe and fields. ■ Diet – Mainly small birds and mammals. <p>Ringed plover (Breeding); <i>Charadrius hiaticula</i></p>

Site Name	Area (ha)	Qualifying Features	Key vulnerabilities	Conservation Objectives	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
		<ul style="list-style-type: none"> ■ <i>Pluvialis apricaria</i>; European golden plover (Non-breeding) ■ <i>Philomachus pugnax</i>; Ruff (Non-breeding) ■ <i>Tringa totanus</i>; Common redshank (Non-breeding) 			<ul style="list-style-type: none"> ■ Habitat Preference – Sandy areas with low vegetation, and on migration estuaries. ■ Diet – In summer, invertebrates and in winter primarily marine worms, crustaceans and molluscs. <p>Grey plover (Non-breeding); <i>Pluvialis squatarola</i></p> <ul style="list-style-type: none"> ■ Habitat Preference – Tundra, and on migration pasture and estuaries. ■ Diet – In summer, invertebrates and in winter primarily marine worms, crustaceans and molluscs. <p>Dunlin (Non-breeding); <i>Calidris alpina alpina</i></p> <ul style="list-style-type: none"> ■ Habitat Preference – Tundra, moor, heath, and on migration estuaries and coastal habitat. ■ Diet – Insects, snails and worms. <p>Black-tailed godwit (Non-breeding); <i>Limosa limosa islandica</i></p> <ul style="list-style-type: none"> ■ Habitat Preference – Marshy grassland and steppe, and on migration mudflats. ■ Diet – Insects, worms and snails, but also some plants, beetles,

Site Name	Area (ha)	Qualifying Features	Key vulnerabilities	Conservation Objectives	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
					<p>grasshoppers and other small insects during the breeding season.</p> <p>Little tern (Breeding); <i>Sterna albifrons</i></p> <ul style="list-style-type: none"> Habitat Preference – Seacoasts, rivers and lakes. Diet – Small fish and invertebrates. <p>Waterbird Assemblage –</p> <p>The waterfowl assemblage relies on a variety of habitats to support population numbers, including intertidal mudflats and sandflats, boulder and cobble shores, saltmarsh, seagrass beds and shallow coastal waters</p>
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"> water beetle <i>Paracymus aeneus</i>; damselfly <i>Lestes dryas</i>; flies <i>Aedes flavescens</i>, <i>Erioptera bivittata</i>, <i>Hybomitra expollicata</i>; 	Similar to Colne Estuary SPA (above).	None available.	<p>Habitat -</p> <p>Saltmarsh habitat is reliant a range of coastal factors, in particular sedimentary and tidal processes which influence the pattern and development of vegetation. These factors influence the complex interdependent intertidal, subtidal and terrestrial habitats present along the coast.</p> <p>Invertebrates -</p> <p>These species are reliant on the saltmarsh habitat and characteristic flora and fauna that are present within the European site. Key sources of food range from flowering plants, organic matter and other invertebrate species.</p> <p>Birds -</p>

Site Name	Area (ha)	Qualifying Features	Key vulnerabilities	Conservation Objectives	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
		<ul style="list-style-type: none"> ■ spiders <i>Heliophanus auratus</i> and <i>Trichopterna cito</i>; ■ beetles <i>Baris scolopacea</i>, <i>Philonthus punctus</i>, <i>Graptodytes bilineatus</i> and <i>Malachius vulneratus</i>; ■ flies <i>Campsicemus magius</i>, <i>Myopites eximia</i>; ■ moths <i>Idaea ochrata</i> and <i>Malacosoma castrensis</i>; ■ spider <i>Euophrys</i>. <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"> ■ Dark-bellied brent goose, <i>Branta bernicla</i>; ■ Grey plover, <i>Pluvialis squatarola</i>; ■ Dunlin, <i>Calidris alpina alpina</i>; 			Refer to Blackwater Estuary (Mid-Essex Coast Phase 4) SPA above for details on qualifying bird species.

Appendix B
European Site Information
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Site Name	Area (ha)	Qualifying Features	Key vulnerabilities	Conservation Objectives	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
		<ul style="list-style-type: none"> ■ Black-tailed godwit, <i>Limosa limosa islandica</i>; ■ European golden plover, <i>Pluvialis apricaria apricaria</i>; ■ Common redshank, <i>Tringa totanus tetanus</i>. 			

Appendix C

Screening Matrix

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Screening Matrix

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Plan Policy	Likely activities (operations) to result as a consequence of the proposal	Likely effect if proposal is implemented	European site/s potentially affected	Could the proposal have likely significant effects
Sustainable Growth Policies				
Policy SG1: Colchester's Spatial Hierarchy	None - The policy sets out the spatial approach to development in the Borough between 2017 – 2033.	N/A	N/A	No
Policy SG2: Housing Delivery	<p>Yes - The policy sets out the overall housing numbers that need to be delivered over the Local Plan period between 2017-2033.</p> <p>This has potential to result in the following impacts:</p> <p>Loss and damage of habitats</p> <p>Increased in vehicle use</p> <p>Increase in recreational activities</p> <p>Increase in demand for water abstraction and treatment</p>	<p>Loss and/or damage of habitats</p> <p>Non-physical disturbance</p> <p>Non-toxic contamination</p> <p>Increased air pollution</p> <p>Disturbance from recreation</p> <p>Change in water quantity and increased water pollution</p>	<p>Essex Estuaries SAC</p> <p>Abberton Reservoir SPA and Ramsar</p> <p>Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar</p> <p>Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar</p> <p>Stour and Orwell Estuaries SPA and Ramsar</p> <p>Dengie (Mid-Essex Coast Phase 1) SPA and Ramsar</p> <p>Outer Thames Estuary SPA</p> <p>Hamford Water SAC, SPA and Ramsar</p> <p>Foulness (Mid-Essex Coast Phase 5) SPA and Ramsar</p> <p>Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA and Ramsar</p>	Uncertain
Policy SG3: Economic Growth Provision	<p>Yes - this policy identifies the strategic locations where new economic development will be directed in the Borough between 2017-2033. The policy allocates 39.7 ha of land for delivery of employment land.</p> <p>This has potential to result in the following impacts:</p>	<p>Loss and/or damage of habitats</p> <p>Non-physical disturbance</p> <p>Non-toxic contamination</p> <p>Increased air pollution</p> <p>Change in water quantity and increased water pollution</p>	As above	Uncertain

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Plan Policy	Likely activities (operations) to result as a consequence of the proposal	Likely effect if proposal is implemented	European site/s potentially affected	Could the proposal have likely significant effects
	Loss and damage of habitats. Increased in vehicle use Increase in demand for water abstraction and treatment			
Policy SG4: Local Economic Areas	Yes - this policy sets out the planning approach for development for Local Economic Areas across the Borough. The policy will lead to the development of land, principally for employment uses. This has potential to result in the following impacts: Loss and damage of habitats. Increased in vehicle use Increase in demand for water abstraction and treatment	As above	As above	Uncertain
Policy SG5: Centre Hierarchy	Yes - this policy identifies a centres hierarchy for the Borough and also proposes two new district centres.	N/A	N/A	No - none of the centres are within close proximity to a European site. Furthermore the policy does not allocate land for development. Therefore this policy will not result in likely significant effect on European sites.
Policy SG6: Town Centre Uses	Yes - this policy seeks to allocate mixed use commercial areas within urban Colchester.	N/A	N/A	No – this policy will lead to the development of land but only within Colchester Town and only for commercial uses. The policy therefore will not result in likely significant effect on European sites.
Policy SG6a Local Centres	None - this policy identifies the local centres in the Borough and sets out	N/A	N/A	No

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Plan Policy	Likely activities (operations) to result as a consequence of the proposal	Likely effect if proposal is implemented	European site/s potentially affected	Could the proposal have likely significant effects
	criteria for proposals affecting local centres.			
Policy SG7: Infrastructure Delivery and Impact Mitigation	None - this policy identifies the requirement for all new development to deliver necessary infrastructure to make development sustainable.	N/A	N/A	No
Policy SG8: Neighbourhood Plans	None - this policy sets out the Council's position in relation to Neighbourhood Planning. It clarifies the different approaches to be followed for Neighbourhood Plans allocating land and those not allocating land.	N/A	N/A	No
Environmental Assets Policies				
Policy ENV1: Environment	None - the purpose of this policy is to protect all designated nature conservation sites and landscapes including internationally designated sites within the Borough.	N/A	N/A	No
Policy ENV2: Coastal Areas	None - this policy seeks to restrict inappropriate development within the Coastal Protection Belt and along undeveloped sections of the Borough's coast where the majority of the European sites are.	N/A	N/A	No
Policy ENV3: Green Infrastructure	None – this policy will result in the delivery of new green and blue infrastructure across the Borough.	N/A	N/A	No
Policy ENV4: Dedham Vale Area of Outstanding Natural Beauty	None – this policy option seeks to protect the Dedham Vale AONB from inappropriate development.	N/A	N/A	No

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Plan Policy	Likely activities (operations) to result as a consequence of the proposal	Likely effect if proposal is implemented	European site/s potentially affected	Could the proposal have likely significant effects
Policy ENV5: Pollution and Contaminated Land	None - this policy sets out the requirements that developers must comply with regards the use and management of Pollution and Contaminated Land. The key aim of this policy is to ensure that development will not lead to an unacceptable risk to public health or safety, the environment or existing uses due to the potential for air pollution, noise nuisance, surface/ground water sources or land.	N/A	N/A	No
Climate Change Policy				
Policy CC1: Climate Change	This policy encourages the delivery of renewable energy, sustainable technologies, improved energy efficiency. The policy itself will not lead to development.	N/A	N/A	No
Place Policy				
Policy PP1: Generic Infrastructure and Mitigation Requirements	None - this policy identifies general issues around infrastructure provision and developer contributions that affects proposals across the Borough and are essential to ensure that new development adequately mitigates its impacts on the surrounding area and makes a positive contribution to its character and amenity.	N/A	N/A	No
Central Colchester Policies				
TC1: Town Centre Policy and Hierarchy	Yes – this policy will result in the development of retail in main towns centres.	Loss and/or damage of habitats Non-physical disturbance	Essex Estuaries SAC Abberton Reservoir SPA and Ramsar	Uncertain

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Screening Matrix

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Plan Policy	Likely activities (operations) to result as a consequence of the proposal	Likely effect if proposal is implemented	European site/s potentially affected	Could the proposal have likely significant effects
		Non-toxic contamination Increased air pollution Disturbance from recreation Change in water quantity and increased water pollution	Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar Stour and Orwell Estuaries SPA and Ramsar Dengie (Mid-Essex Coast Phase 1) SPA and Ramsar Outer Thames Estuary SPA Hamford Water SAC, SPA and Ramsar Foulness (Mid-Essex Coast Phase 5) SPA and Ramsar Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA and Ramsar	
Policy TC2: Retail Frontages	None – this policy sets out protection measures for proposals to change the use of existing retail sites.	N/A	N/A	No
Policy TC3: Town Centre Allocations	Yes – this policy sets out the provision of retail, residential and employment within town centres.	Loss and/or damage of habitats Non-physical disturbance Non-toxic contamination Increased air pollution Disturbance from recreation Change in water quantity and increased water pollution	Essex Estuaries SAC Abberton Reservoir SPA and Ramsar Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar Stour and Orwell Estuaries SPA and Ramsar Dengie (Mid-Essex Coast Phase 1) SPA and Ramsar	Uncertain

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Screening Matrix

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Plan Policy	Likely activities (operations) to result as a consequence of the proposal	Likely effect if proposal is implemented	European site/s potentially affected	Could the proposal have likely significant effects
			Outer Thames Estuary SPA Hamford Water SAC, SPA and Ramsar Foulness (Mid-Essex Coast Phase 5) SPA and Ramsar Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA and Ramsar	
Policy TC4: Transport in Colchester Town Centre	None - this policy identifies a suite of sustainable transport infrastructure enhancements needed to help mitigate any identified impacts of development on the highway network in the Town Centre.	Neutral impact with the potential to increase the level of cycling and the use of public transport which could contribute to improvements in air quality	N/A	No
North Colchester Policies				
Policy NC1: North Colchester and Severalls Strategic Economic Area	Yes - this policy will directly result in the development of land in North Colchester and Severalls for housing and economic uses. This has potential to result in the following impacts: Loss and damage of habitats Increased in vehicle use Increase in recreational activities Increase in demand for water abstraction and treatment	Loss and/or damage of habitats Non-physical disturbance Non-toxic contamination Increased air pollution Change in water quantity and increased water pollution	Essex Estuaries SAC Abberton Reservoir SPA and Ramsar Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar Stour and Orwell Estuaries SPA and Ramsar Dengie (Mid-Essex Coast Phase 1) SPA and Ramsar Outer Thames Estuary SPA Hamford Water SAC, SPA and Ramsar Foulness (Mid-Essex Coast Phase 5) SPA and Ramsar	Uncertain

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Screening Matrix

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Plan Policy	Likely activities (operations) to result as a consequence of the proposal	Likely effect if proposal is implemented	European site/s potentially affected	Could the proposal have likely significant effects
			Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA and Ramsar	
Policy NC2: North Station Special Policy Area	<p>Yes - this policy will directly result in the regeneration and development of land within the North Station Special Policy Area only.</p> <p>This has potential to result in the following impacts:</p> <p>Loss and damage of habitats</p> <p>Increased in vehicle use</p> <p>Increase in recreational activities</p> <p>Increase in demand for water abstraction and treatment</p>	<p>Loss and/or damage of habitats</p> <p>Non-physical disturbance</p> <p>Non-toxic contamination</p> <p>Increased air pollution</p> <p>Disturbance from recreation</p> <p>Change in water quantity and increased water pollution</p>	As above	Uncertain
Policy NC3: North Colchester	Yes – this policy will directly result in development of land in north Colchester.	As above	As above	Uncertain
Policy NC4: Transport in North Colchester	This policy identifies a suite of sustainable transport infrastructure enhancements needed to help mitigate any identified impacts of development on the highway network in North Colchester	Neutral impact with the potential to increase the level of cycling and the use of public transport which could contribute to improvements in air quality	N/A	No
South Colchester Policies				
Policy SC1: South Colchester Allocations	<p>Yes – this policy sets out specific site allocations for housing in south Colchester.</p> <p>This has potential to result in the following impacts:</p> <p>Loss and Damage of habitats.</p>	<p>Loss and/or damage of habitats</p> <p>Non-physical disturbance</p> <p>Non-toxic contamination</p> <p>Increased air pollution</p> <p>Disturbance from recreation</p>	<p>Essex Estuaries SAC</p> <p>Abberton Reservoir SPA and Ramsar</p> <p>Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar</p>	Uncertain

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Plan Policy	Likely activities (operations) to result as a consequence of the proposal	Likely effect if proposal is implemented	European site/s potentially affected	Could the proposal have likely significant effects
	<p>Increased in vehicle use</p> <p>Increase in recreational activities</p> <p>Increase in demand for water abstraction and treatment</p>	Change in water quantity and increased water pollution	<p>Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar</p> <p>Stour and Orwell Estuaries SPA and Ramsar</p> <p>Dengie (Mid-Essex Coast Phase 1) SPA and Ramsar</p> <p>Outer Thames Estuary SPA</p> <p>Hamford Water SAC, SPA and Ramsar</p> <p>Foulness (Mid-Essex Coast Phase 5) SPA and Ramsar</p> <p>Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA and Ramsar</p>	
Policy SC2: Middlewick Ranges	<p>Yes – this policy sets out the provision of 1000 new homes in south Colchester.</p> <p>This has potential to result in the following impacts:</p> <p>Loss and Damage of habitats.</p> <p>Increased in vehicle use</p> <p>Increase in recreational activities</p> <p>Increase in demand for water abstraction and treatment</p>	As above	As above	Uncertain
Policy SC3: Transport in South Colchester	<p>None - this policy identifies a suite of sustainable transport infrastructure enhancements needed to help mitigate any identified impacts of development on the highway network in South Colchester.</p>	<p>Neutral impact with the potential to increase the level of cycling and the use of public transport which could contribute to improvements in air quality</p>	N/A	No
East Colchester Policies				

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Plan Policy	Likely activities (operations) to result as a consequence of the proposal	Likely effect if proposal is implemented	European site/s potentially affected	Could the proposal have likely significant effects
Policy EC1: Knowledge Gateway and University of Essex Strategic Economic Area	<p>Yes - this policy will directly result in the development of land around the University of Essex for housing and economic uses.</p> <p>This has potential to result in the following impacts:</p> <p>Loss and Damage of habitats.</p> <p>Increased in vehicle use</p> <p>Increase in recreational activities</p> <p>Increase in demand for water abstraction and treatment</p>	<p>Loss and/or damage of habitats</p> <p>Non-physical disturbance</p> <p>Non-toxic contamination</p> <p>Increased air pollution</p> <p>Change in water quantity and increased water pollution</p>	<p>Essex Estuaries SAC</p> <p>Abberton Reservoir SPA and Ramsar</p> <p>Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar</p> <p>Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar</p> <p>Stour and Orwell Estuaries SPA and Ramsar</p> <p>Dengie (Mid-Essex Coast Phase 1) SPA and Ramsar</p> <p>Outer Thames Estuary SPA</p> <p>Hamford Water SAC, SPA and Ramsar</p> <p>Foulness (Mid-Essex Coast Phase 5) SPA and Ramsar</p> <p>Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA and Ramsar</p>	Uncertain
Policy EC2: East Colchester / Hythe Special Policy Area	<p>Yes, this policy will directly result in the development of land around east Colchester for housing and economic uses.</p> <p>This has potential to result in the following impacts:</p> <p>Loss and Damage of habitats.</p> <p>Increased in vehicle use</p> <p>Increase in recreational activities</p> <p>Increase in demand for water abstraction and treatment</p>	<p>Loss and/or damage of habitats</p> <p>Non-physical disturbance</p> <p>Non-toxic contamination</p> <p>Increased air pollution</p> <p>Disturbance from recreation</p> <p>Change in water quantity and increased water pollution</p>	As above	Uncertain

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Plan Policy	Likely activities (operations) to result as a consequence of the proposal	Likely effect if proposal is implemented	European site/s potentially affected	Could the proposal have likely significant effects
Policy EC3: East Colchester	<p>Yes, this policy will directly result in the development of land around east Colchester for housing and economic uses.</p> <p>This has potential to result in the following impacts:</p> <p>Loss and Damage of habitats.</p> <p>Increased in vehicle use</p> <p>Increase in recreational activities</p> <p>Increase in demand for water abstraction and treatment</p>	As above	As above	Uncertain
Policy EC4: Transport in East Colchester	<p>None - this policy identifies a suite of sustainable transport infrastructure enhancements needed to help mitigate any identified impacts of development on the highway network in east Colchester.</p>	<p>Neutral impact with the potential to increase the level of cycling and the use of public transport which could contribute to improvements in air quality</p>	N/A	No
West Colchester Policies				
Policy WC1: Stanway Strategic Economic Area	<p>Yes - this policy will directly result in the development of land around west Colchester, principally for employment purposes.</p> <p>This has potential to result in the following impacts:</p> <p>Loss and Damage of habitats.</p> <p>Increased in vehicle use</p> <p>Increase in recreational activities</p>	<p>Loss and/or damage of habitats</p> <p>Non-physical disturbance</p> <p>Non-toxic contamination</p> <p>Increased air pollution</p> <p>Disturbance from recreation</p> <p>Change in water quantity and increased water pollution</p>	<p>Essex Estuaries SAC</p> <p>Abberton Reservoir SPA and Ramsar</p> <p>Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar</p> <p>Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar</p> <p>Stour and Orwell Estuaries SPA and Ramsar</p> <p>Dengie (Mid-Essex Coast Phase 1) SPA and Ramsar</p>	Uncertain

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Plan Policy	Likely activities (operations) to result as a consequence of the proposal	Likely effect if proposal is implemented	European site/s potentially affected	Could the proposal have likely significant effects
	Increase in demand for water abstraction and treatment.		Outer Thames Estuary SPA Hamford Water SAC, SPA and Ramsar Foulness (Mid-Essex Coast Phase 5) SPA and Ramsar Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA and Ramsar	
Policy WC2: Stanway	Yes - this policy will directly result in the development of land around Stanway, principally for residential purposes. This has potential to result in the following impacts: Loss and Damage of habitats. Increased in vehicle use Increase in recreational activities Increase in demand for water abstraction and treatment	Loss and/or damage of habitats Non-physical disturbance Non-toxic contamination Increased air pollution Disturbance from recreation Change in water quantity and increased water pollution	As above	Uncertain
Policy WC3: Colchester Zoo	Yes - this policy sets out the policy framework to guide expansion of Colchester Zoo.	Loss and/or damage of habitats Non-physical disturbance Non-toxic contamination Increased air pollution Change in water quantity and increased water pollution	As above	Uncertain
Policy WC4: West Colchester	Yes, this policy will directly result in the development of land around west Colchester for residential use.	Loss and/or damage of habitats Non-physical disturbance Non-toxic contamination	Essex Estuaries SAC Abberton Reservoir SPA and Ramsar Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar	Uncertain

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Plan Policy	Likely activities (operations) to result as a consequence of the proposal	Likely effect if proposal is implemented	European site/s potentially affected	Could the proposal have likely significant effects
	<p>This has potential to result in the following impacts:</p> <p>Loss and Damage of habitats.</p> <p>Increased in vehicle use</p> <p>Increase in recreational activities</p> <p>Increase in demand for water abstraction and treatment</p>	<p>Increased air pollution</p> <p>Disturbance from recreation</p> <p>Change in water quantity and increased water pollution</p>	<p>Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar</p> <p>Stour and Orwell Estuaries SPA and Ramsar</p> <p>Dengie (Mid-Essex Coast Phase 1) SPA and Ramsar</p> <p>Outer Thames Estuary SPA</p> <p>Hamford Water SAC, SPA and Ramsar</p> <p>Foulness (Mid-Essex Coast Phase 5) SPA and Ramsar</p> <p>Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA and Ramsar</p>	
Policy WC5: Transport in West Colchester	None - this policy identifies a suite of sustainable transport infrastructure enhancements needed to help mitigate any identified impacts of development on the highway network in west Colchester.	Neutral impact with the potential to increase the level of cycling and the use of public transport which could contribute to improvements in air quality	N/A	No
Sustainable Settlements Policies				
Policy SS1: Abberton and Langenhoe	<p>Land to the west of Peldon Road (50 dwellings).</p> <p>Land to the east of Peldon Road (5 dwellings).</p> <p>This has potential to result in the following impacts:</p> <p>Loss and Damage of habitats.</p> <p>Increased in vehicle use</p> <p>Increase in recreational activities</p>	<p>Loss and/or damage of habitats</p> <p>Non-physical disturbance</p> <p>Non-toxic contamination</p> <p>Increased air pollution</p> <p>Disturbance from recreation</p> <p>Change in water quantity and increased water pollution</p>	<p>Essex Estuaries SAC</p> <p>Abberton Reservoir SPA and Ramsar</p> <p>Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar</p> <p>Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar</p> <p>Stour and Orwell Estuaries SPA and Ramsar</p>	Uncertain

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Plan Policy	Likely activities (operations) to result as a consequence of the proposal	Likely effect if proposal is implemented	European site/s potentially affected	Could the proposal have likely significant effects
	Increase in demand for water abstraction and treatment		Dengie (Mid-Essex Coast Phase 1) SPA and Ramsar Outer Thames Estuary SPA Hamford Water SAC, SPA and Ramsar Foulness (Mid-Essex Coast Phase 5) SPA and Ramsar Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA and Ramsar	
Policy SS2: Boxted	Hill Fam (36 dwellings).	As above	As above	Uncertain
Policy SS3: Chappel and Wakes Colne	Chappel and Wakes Colne (30 dwellings).	As above	As above	Uncertain
Policy SS4: Copford	East of Queensberry Avenue (70 dwellings). West of Hall Road (50 dwellings).	As above	As above	Uncertain
Policy SS5: Eight Ash Green	Fiddlers Field (150 dwellings).	As above	As above	Uncertain
Policy SS6: Fordham	Fordham (20 dwellings).	As above	As above	Uncertain
Policy SS7: Great Horkesley	Great Horkesley Manor (80 dwellings and allotments). School Lane (13 dwellings).	As above	As above	Uncertain
Policy SS8: Great Tey	Land on Brook Road (10 dwellings). Land off Greenfield Drive (30 dwellings).	As above	As above	Uncertain
Policy SS9: Langham	Wick Road (10 dwellings). School Road (70 dwellings).	As above	As above	Uncertain

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Plan Policy	Likely activities (operations) to result as a consequence of the proposal	Likely effect if proposal is implemented	European site/s potentially affected	Could the proposal have likely significant effects
Policy SS10: Layer de la Haye	Layer de la Haye (35 dwellings).	As above	As above	Uncertain
Policy SS11: Marks Tey	Yes, this policy will directly result in the development of land around Marks Tey for residential use.	As above	As above	Uncertain
Policy SS12a: West Mersea	Dawes Lane (100 dwellings). Brierley Paddocks (100 dwellings).	As above	As above	Uncertain
Policy SS12b: Coast Road, West Mersea	Development of Coast Road.	As above	As above	Uncertain
Policy SS12c: Mersea Island Caravan Parks	Development and intensification of caravan park.	As above	As above	Uncertain
Policy SS13: Rowhedge	Rowhedge (40 dwellings).	As above	As above	Uncertain
Policy SS14: Tiptree	Tiptree (600 dwellings).	As above	As above	Uncertain
Policy SS15: West Bergholt	West Bergholt (120 dwellings).	As above	As above	Uncertain
Other Villages and Countryside Policies				
Policy OV1: Development in Other Villages	Yes – this policy may lead to new infill developments, development on previously developed sites, and extensions, restorations or alterations to existing buildings.	Loss and/or damage of habitats Non-physical disturbance Non-toxic contamination Increased air pollution Disturbance from recreation Change in water quantity and increased water pollution	Essex Estuaries SAC Abberton Reservoir SPA and Ramsar Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar Stour and Orwell Estuaries SPA and Ramsar Dengie (Mid-Essex Coast Phase 1) SPA and Ramsar	Uncertain

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Plan Policy	Likely activities (operations) to result as a consequence of the proposal	Likely effect if proposal is implemented	European site/s potentially affected	Could the proposal have likely significant effects
			Outer Thames Estuary SPA Hamford Water SAC, SPA and Ramsar Foulness (Mid-Essex Coast Phase 5) SPA and Ramsar Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA and Ramsar	
Policy OV2: Countryside	Yes – this policy sets out the requirement that new employment and residential development in rural areas outside of the Local Plan will need to meet.	As above	As above	Uncertain
Development Management Policies				
Policy DM1: Health and Wellbeing	None – this policy relates to health and wellbeing, and therefore will not directly result in development.	N/A	N/A	No
Policy DM2: Community Facilities	Yes - this policy seeks to protect existing community facilities and deliver new ones across the Borough of Colchester to create sustainable communities. The retention of community facilities will not result in any adverse impacts on any European sites as they already exist. Where New facilities are to be delivered, these will be delivered within urban Colchester and across the sustainable settlements at accessible locations to maximise benefits for local communities.	N/A	N/A	No - this policy will result in small scale development that will not result in likely significant effect on European sites.
Policy DM3: Education Provision	Yes - This policy seeks to protect existing community facilities and deliver new ones across the Borough of Colchester to create sustainable	N/A	N/A	No - this policy will result in small scale development that will not result

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Plan Policy	Likely activities (operations) to result as a consequence of the proposal	Likely effect if proposal is implemented	European site/s potentially affected	Could the proposal have likely significant effects
	communities. The retention of community facilities will not result in any adverse impacts on any European sites as they already exist. Where New facilities are to be delivered, these will be delivered within urban Colchester and across the sustainable settlements at accessible locations to maximise benefits for local communities			in likely significant effect on European sites.
Policy DM4: Sports Provision	Yes - this policy will lead to the development of land to accommodate new sports facilities. The delivery of new strategic sports facilities will be focused at hub sites including the Garden Communities; North Colchester; the University of Essex and the Garrison. The policy also supports expanding existing facilities where a need is identified.	N/A	N/A	No - this policy will result in small scale development that will not result in likely significant effect on European sites.
Policy DM5: Tourism, Leisure, Culture and Heritage	Yes – this policy sets out the requirement for additional tourist facilities to meet.	N/A	N/A	No - this policy will result in small scale development that will not result in likely significant effect on European sites. Furthermore, the policy states that proposals that are likely to have an adverse impact on the integrity of European sites or the Dedham Vale AONB will not be supported.
Policy DM6: Economic Development in Rural Areas and the Countryside	Yes - this policy seeks to protect and manage existing Local Economic Areas across rural Colchester and includes criteria governing the re use conversion and extension of existing rural buildings in the countryside.	Change in water quantity and increased water pollution	N/A	Uncertain - a draft Water Cycle Study has highlighted potential water quality issues due to a lack of capacity at the Langham Water Recycling Centre. Potential impacts on the Stour Estuary needs further investigation.

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Plan Policy	Likely activities (operations) to result as a consequence of the proposal	Likely effect if proposal is implemented	European site/s potentially affected	Could the proposal have likely significant effects
Policy DM7: Agricultural Development and Diversification	Yes – this policy support and encourage appropriate farm diversification proposals.	N/A	N/A	No - this policy will result in small scale development that will not result in likely significant effect on European sites.
Policy DM8: Affordable Housing	None – this policy sets out the requirement for affordable housing within the plan.	N/A	N/A	No
Policy DM9: Development Density	None - this policy sets out the factors that need to be considered to determine the appropriate housing density and massing of new residential developments.	N/A	N/A	No
Policy DM10: Housing Diversity	None – this policy seeks to ensure that a range of housing types is delivered.	N/A	N/A	No
Policy DM11: Gypsies, Travellers, and Travelling Showpeople	Yes – this policy confirms that gypsy and traveller provision up to 2023 will be delivered at the existing allocated site at Severalls Lane. The policy also states that future need for 9 pitches beyond 2023 will be provided in the new Garden Communities.	N/A	N/A	No - the Severalls Lane site is a well-managed ECC Gypsy & Traveller site located in North Colchester well away from any European sites in the Borough. This policy will result in small scale development that will not result in likely significant effect on European sites.
Policy DM12: Housing Standards	None - this policy sets out the standards that all new housing developments will need to meet across the Borough	N/A	N/A	No
Policy DM13: Domestic development	Yes - this policy provides criteria to guide extensions and conversions and alterations to existing dwellings.	N/A	N/A	No - this policy will result in small scale development that will not result in likely significant effect on European sites.

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Plan Policy	Likely activities (operations) to result as a consequence of the proposal	Likely effect if proposal is implemented	European site/s potentially affected	Could the proposal have likely significant effects
Policy DM14: Rural Workers' Housing	Yes - this policy sets out the planning consideration to manage the provision of rural workers accommodation.	N/A	N/A	No - this policy will result in small scale development that will not result in likely significant effect on European sites.
Policy DM15: Design and Amenity	None - this policy sets out the policy criteria that all developments will be expected to satisfy to achieve good design and protect amenity.	N/A	N/A	No
Policy DM16: Historic Environment	None – this policy seeks to protect the character and appearance of historic assets.	N/A	N/A	No
Policy DM17: Retention of Open Space and Recreation Facilities	None - this policy protects the existing network of green links and open spaces and seeks to secure additional areas where deficiencies are identified.	N/A	N/A	No
Policy DM18: Provision of Public Open Space	None - this policy sets out a requirement for all new development to provide at least 10% open space.	N/A	N/A	No
Policy DM19: Private Amenity Space	None - this draft policy seeks to increase provisions levels of private amenity space in the Borough.	N/A	N/A	No
Policy DM20: Promoting Sustainable Transport and Changing Travel Behaviour	None - this policy seeks to change travel behaviour and promote a modal shift to walking and cycling at the Borough level. The policy will could result in the development of land to accommodate new cycling/walking infrastructure.	The policy promotes the provision of sustainable modes of transport and as such may provide mitigation for the impacts of other policies in relation to increased car and the associated air pollution.	N/A	No - this policy will result in small scale development that will not result in likely significant effect on European sites.
Policy DM21: Sustainable Access to Development	None - this policy seeks to improve the accessibility of new developments by ensuring that they are well linked to	The policy promotes the use of sustainable transport and as such may provide mitigation for the impacts of	N/A	No - this policy will result in small scale development that will not result

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Plan Policy	Likely activities (operations) to result as a consequence of the proposal	Likely effect if proposal is implemented	European site/s potentially affected	Could the proposal have likely significant effects
	<p>public transport points and walking and cycling networks.</p> <p>The policy will could result in the development of land to accommodate new cycling/walking infrastructure and result in an increase in disturbance at designated sites.</p>	other policies in relation to increased car and the associated air pollution.		in likely significant effect on European sites.
Policy DM22: Parking	None - This policy sets out parking standards to be met as part of new developments across the Borough.	N/A	N/A	No
Policy DM23: Flood Risk and Water Management	None - this policy seeks to reduce flood risk and promotes the provision of sustainable drainage as part of future development across the Borough.	N/A	N/A	No
Policy DM24: Sustainable Urban Drainage Systems	None - this policy seeks to reduce flood risk and promotes the provision of sustainable drainage as part of future development across the Borough.	This policy makes provision for SUDs, which may provide mitigation for impacts relating to water quality and quantity.	N/A	No
Policy DM25: Renewable Energy, Water, Waste and Recycling	None - this policy seeks to improve the efficiency of new developments across the Borough in terms of energy and water, waste and recycling. The policy sets standards for water and energy use but is also clarifies mitigation measures needed as part of any renewable energy schemes.	Seeking improved water efficiency in new development will be beneficial in terms of water supply, while reducing the amount of waste going to landfill will help reduce the risk of pollution in receiving water bodies.	N/A	No

Appendix D

Review of other plans and projects for in-combination effects

North Essex Authorities Shared Strategic Section 1 Local Plan	
Plan Owner/ Competent Authority	Braintree District, Colchester Borough, and Tendring District Councils
Related work HRA/AA	HRA Report for North Essex Authorities Shared Strategic Section 1 Local Plan
Notes on Plan documents	The neighbouring authorities of North Essex agreed to come together because of their shared desire to promote sustainable growth; and the particular need to articulate the strategic priorities within the wider area and how they will be addressed. Central to this is the effective delivery of planned strategic growth, particularly housing and employment development, with the necessary supporting infrastructure.
<p>Conclusions on potential effects of relevance to European sites within scope of HRA of Colchester Local Plan</p> <p>The approach being taken by the North Essex Authorities in addressing the key issues, particularly the strategic and collaborative approach, and working closely with Natural England, is advocated and deemed to be the most appropriate and pragmatic approach in ensuring that the Shared Strategic Section 1 Local Plan is sound.</p> <p>In light of the People Over Wind and Holohan ruling, it can be confirmed that the findings of the HRA rely on avoidance and mitigation measures only at the Appropriate Assessment and that the complex relationships between qualifying and non-qualifying habitats and species for each site are taken into account.</p> <p>In conclusion, providing that key recommendations and mitigation requirements are adopted and implemented, the Shared Strategic Section 1 Local Plan will not result in adverse effects on the integrity of European sites either alone or in-combination.</p>	

Braintree Section 2 Local Plan	
Plan Owner/ Competent Authority	Braintree District Council
Related work HRA/AA	Habitat Regulations Assessment of Braintree Local Plan
Notes on Plan documents	The New Local Plan was submitted to the Planning Inspectorate on 9th October 2017. Section 1 is currently under examination by a Planning Inspector.
<p>Conclusions on potential effects of relevance to European sites within scope of HRA of Braintree Local Plan</p> <p>The Braintree Section 2 HRA concluded at the Screening stage that there was potential for Likely Significant Effects 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 Section 2 Local Plan, Colchester Borough Section 2 Local Plan, and the Shared Strategic Section 1 Local Plan.</p> <p>The Appropriate Assessment stage identified whether the above Likely Significant Effects 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 was provided which would enable a sufficient level of certainty to conclude no Adverse Effect on Integrity (AEoI).</p> <p>The key recommendation made in the HRA report was for a Recreational disturbance Avoidance and Mitigation Strategy (RAMS) to be prepared jointly by the North Essex Authorities to mitigate the effect of recreational pressures on the above European Sites. As detailed in Section6, an Essex Coast RAMS has now been prepared. The Braintree Section 2 HRA concluded that, providing the key recommendations and mitigation requirements were implemented there would be no adverse effect on the Colne Estuary SPA/Ramsar, Essex Estuaries SAC, and Blackwater Estuary SPA/Ramsar, either alone or in-combination with other plans and projects.</p>	

Tendring Section 2 Local Plan	
Plan Owner/ Competent Authority	Tendring District Council
Related work HRA/AA	Habitat Regulations Assessment of Tendring Local Plan
Notes on Plan documents	On 9 October 2017 Tendring District Council, along with Braintree and Colchester Councils, submitted their Local Plans and accompanying documents to the Planning Inspectorate.
Conclusions on potential effects of relevance to European sites within scope of HRA of Tendring Local Plan <p>The Tendring Draft Local Plan Section 2 HRA concluded at the Screening stage, that Likely Significant Effects on European sites, either alone or in combination with other policies and proposals, could not be ruled out in relation to:</p> <p>Physical loss/damage on Abberton Reservoir SPA/Ramsar (offsite only), Blackwater Estuary SPA/Ramsar (offsite only), Hamford Water SAC (offsite only), Hamford Water SPA/Ramsar (offsite only), Stour and Orwell Estuaries SPA/Ramsar (direct and offsite habitat loss), and Colne Estuaries SPA and Ramsar (offsite only).</p> <p>Recreational Impacts – Essex Estuaries SAC, Hamford Water SAC, Hamford Water SPA/Ramsar, Stour and Orwell Estuaries SPA and Ramsar, and Colne Estuary SPA/Ramsar.</p> <p>Water quality – Essex Estuaries SAC, Stour and Orwell Estuaries SPA/Ramsar, Colne Estuary SPA/Ramsar.</p> <p>Non-toxic contamination – Stour and Orwell Estuaries SPA/Ramsar.</p> <p>Non-physical disturbance – Stour and Orwell Estuaries SPA/Ramsar.</p> <p>The HRA advocated the approach to avoidance and mitigation being taken by Tendring District Council in addressing the key issues, particularly with regards to working alongside the other North Essex Authorities in relation to strategic growth. The HRA concluded that subject to specific policy safeguards and providing that additional mitigation measures and safeguards in relation to policies SAE5 and SAE6 were adopted and successfully implemented, it was concluded that there would be no adverse effects on European sites either alone or in-combination. Natural England in its role as the Statutory Consultee for the HRA, has confirmed that it supports these conclusions.</p>	

Babergh Core Strategy & Policies (2011-2031) Local Plan ³⁸	
Plan Owner/ Competent Authority:	Babergh District Council
Related work HRA/AA:	Core Strategy Submission Draft HRA Screening Report September 2011 ³⁹
Notes on Plan documents:	Local Plan was adopted in February 2014. Provision for 5,975 new dwellings and employment space to accommodate 9,700 new jobs during 2011-2031. 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.
Conclusions on potential effects of relevance to European sites within scope of HRA of Braintree Local Plan <p>The HRA screening suggests that Babergh will primarily need to ensure the impacts on the Stour and Orwell estuaries are monitored, as other European sites which could potentially be affected will be monitored by other councils</p> <p>The following types of potential Likely Significant Effect were identified:</p> <p>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.</p> <p>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.</p>	

³⁸ <http://www.babergh.gov.uk/planning-and-building/planning-policy/local-babergh-development-framework/core-strategy-and-policies-dpd/>

³⁹ <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 ³⁸	
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.	

Core Strategy of the Suffolk Coastal District Local Plan ⁴⁰	
Plan Owner/ Competent Authority:	East Suffolk Council
Related work HRA/AA:	Appropriate Assessment of Suffolk Coastal District Council Core Strategy and Development Management Policies ⁴¹
Notes on Plan documents:	On the 1 st April 2019, East Suffolk Council was created, covering former districts Suffolk Coastal District Council and Waveney District Council. The Local Plan from the former council still applies and covers the area of Suffolk Coastal District Council. Development provided for includes up to 11,000 new houses between 2001 and 2021 and 8000 new jobs between 2001 and 2027.
Conclusions on potential effects of relevance to European sites within scope of HRA of Braintree Local Plan	
The HRA concluded that policy SP2: Housing Numbers would have an adverse effect upon the integrity of a number of European sites along the Suffolk Coast and Heath alone and in-combination as a result of increased visitor pressure in-combination with the Ipswich Borough Core Strategy and Policies. Mitigation is proposed which, if implemented, would reduce the adverse effect to an insignificant level and would enable a conclusion that it can be ascertained that there will be no adverse effect upon the integrity of any European site.	

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	
The HRA Screening Assessment on the potential for likely significant effects on the Blackwater Estuary SPA and Ramsar; Colne Estuary SPA and Ramsar; Crouch and Roach Estuaries SPA and Ramsar; Dengie SPA and Ramsar, and Essex Estuaries SAC, for the Maldon District Post Examination Local Development Plan policies concluded that there will be no significant adverse effects on the integrity of these international sites alone or in-combination.	

South Cambridgeshire Local Plan	
Plan Owner/ Competent Authority:	South Cambridgeshire District Council
Related work HRA/AA:	South Cambridgeshire Local Plan Submission Habitats Regulations Assessment ⁴²

⁴⁰ <https://www.eastsuffolk.gov.uk/assets/Planning/Suffolk-Coastal-Local-Plan/Core-Strategy-and-DMP/SCDC-Local-Plan-July-2013.pdf>

⁴¹ <https://www.eastsuffolk.gov.uk/assets/Planning/Suffolk-Coastal-Local-Plan/Core-Strategy-and-DMP/AA-Report-Nov-2011.pdf>

⁴² https://www.scambs.gov.uk/sites/default/files/documents/HRA%20Screening_0.pdf

South Cambridgeshire Local Plan	
Notes on Plan documents:	<p>The South Cambridgeshire Local Plan was adopted on 27 September 2018.</p> <p>Development provided for in the Draft Plan includes 19,000 new homes and 22,000 additional jobs between 2011 to 2031.</p>
Conclusions on potential effects of relevance to European sites within scope of HRA of Braintree Local Plan <p>The following types of potential Likely Significant Effect were identified:</p> <p>Water Quantity and Quality: increased demand for water supply, sewage discharge and surface run-off were identified as potential impacts to European sites including Ouse Washes SPA, Breckland SAC / SPA, Fenland SAC and Portholme SAC. Negotiations between Anglian Water and Environment Agency, along with investigations by the Environment Agency and existing infrastructure it is considered sufficient to prevent Likely Significant Effects to these Europeans sites. In addition to this, the promotion of Northstowe greenfield site as an Eco-town is likely to minimise impacts in relation to Ouse Washes SPA and provision of a Water Level Management Plan will provide appropriate mitigation for Portholme SAC.</p> <p>Recreational pressure: Numbers were not considered to significantly change at Eversden and Wimpole Woods SAC, Devils Dyke SAC as a result of increased housing in the District. For Fenland SAC, the HRA highlighted the potential need restrict access to this site, and any recreational activities within, may need to be controlled Overall, no Likely Significant Effects were identified.</p> <p>In addition to this, the modification of housing policy H/1 to include three small-scale Parish-led residential allocations in Great Abington and Little Abington, and one small scale Parishled residential allocation in Graveley was found to have no Likely Significant Effects.</p> <p>The HRA concluded no Likely Significant Effects either alone or in combination with other plans and projects on European sites identified in the assessment.</p>	

Uttlesford District Council Regulation 19 Local Plan ⁴³	
Plan Owner/ Competent Authority	Uttlesford District Council
Related work HRA/AA	Uttlesford District Council Habitats Regulations Assessment (2018)
Notes on Plan documents	<p>A local Plan was submitted and subsequently withdrawn in 2014.</p> <p>A revised pdf icon Local Development Scheme was approved by the Cabinet on 16 February 2016 with the draft Plan, including allocation of sites and supporting policies, due to be published in October 2016.</p> <p>Development provided for in the Plan includes 11,500 new homes and 1,900 new jobs between 2011 and 2031.</p>
Conclusions on potential effects of relevance to European sites within scope of HRA of Braintree Local Plan <p>The HRA concluded that there were no Likely Significant Effects (namely Epping Forest SAC) in relation to the Focused Changes of the Regulation 19 Local Plan. No recommendations are made and no further Appropriate Assessment is required.</p>	

Core Strategy Development Plan ⁴⁴ and Joint development management policies ⁴⁵	
Plan Owner/ Competent Authority	St Edmundsbury Borough Council (now forms part of the West Suffolk Council)
Related work HRA/AA	<p>Habitats Regulations Assessment of St Edmundsbury Core Strategy⁴⁶</p> <p>Habitats Regulations Assessment of Development Management Policies Document⁴⁷</p>
Notes on Plan documents	Core Strategy was adopted in December 2010. Following this, a Joint Development Management Policies Document was produced with Forest Heath District Council in February 2015.

⁴³ <http://www.uttlesford.gov.uk/CHttpHandler.ashx?id=3640&p=0>

⁴⁴ http://www.westsuffolk.gov.uk/planning/Planning_Policies/local_plans/upload/Core-Strategy-December-2010.pdf

⁴⁵ http://www.westsuffolk.gov.uk/planning/Planning_Policies/local_plans/upload/JDMPD-FINAL-for-website-R.pdf

⁴⁶ http://www.westsuffolk.gov.uk/planning/Planning_Policies/local_plans/upload/SEBC-Core-Strategy-HRA-December-2010.pdf

⁴⁷ http://www.westsuffolk.gov.uk/planning/Planning_Policies/local_plans/upload/JDMPD-HRA-Screening.pdf

Core Strategy Development Plan ⁴⁴ and Joint development management policies ⁴⁵	
	Development provided for in the Core Strategy and Policies document includes
<p>Conclusions on potential effects of relevance to European sites within scope of HRA of Braintree Local Plan</p> <p><i>Core Strategy Development Plan</i></p> <p>Four policies were identified in the Core Strategy with potential to impact European sites. This included CS1: St Edmundsbury Spatial Strategy, CS9: Employment and the Local Economy, CS11: Bury St Edmunds Strategic Growth and CS12: Haverhill Strategic Growth. These policies were found to have potential to affect Breckland SAC/SPA and Waveney and Little Ouse Valley Fens SAC in relation to recreational pressure and air pollution.</p> <p>The policies within the Plan are at a strategic level with exact details on location, design and/or when (or if) these sites will be constructed upon was not known. Follow on lower tier Development Plan Documents (DPDs) for Policies CS1, CS9, CS11 and CS12 including Bury St Edmunds Area Action Plan (AAP), Haverhill AAP and Site Allocations DPDs (including Rural Allocation Sites and the Gypsy and Travellers sites), which will provide more detail. The plan commits to an HRA being carried out at the development control stage/lower tier development plan stage for any development arising out of these policies.</p> <p><i>Development Management Policies</i></p> <p>The HRA identified 24 of the 50 policies with potential for development. Overall, it concluded no Likely Significant Effects on the Breckland SAC or the Breckland SPA, Waveney and Little Ouse SAC, Devils Dyke SAC, Rex Graham Reserve SAC alone or in-combination with other plans and policies.</p>	
Chelmsford Local Plan	
Plan Owner/ Competent Authority	Chelmsford City Council
Related work HRA/AA	<p>Habitat Regulations Assessment: Initial Scoping of Local Plan</p> <p>Appropriate Assessment of the Chelmsford Core Strategy and Development Control Policies Submission Document DPD November 2006</p> <p>Core Strategy and Development Control Policies Focused Review Sustainability Appraisal Report and HRA Screening Final Report February 2013</p>
Notes on Plan documents	<p>Chelmsford City Council are currently in the process of producing a new local plan.</p> <p>Development provided for includes 16,170 new houses during 2001-2021.</p>
<p>Conclusions on potential effects of relevance to European sites within scope of HRA of Chelmsford Local Plan</p> <p>The HRA Scoping Report of the new Local Plan concluded the following potential impacts:</p> <p>Coastal squeeze, specifically with regard to those sites associated with the Crouch and Roach estuaries.</p> <p>Water quality changes affecting for downstream sites, specifically those associated with the Blackwater estuary and the Crouch and Roach estuaries. Although, it is expected that effects can be reliably avoided with appropriate co-ordination of development and infrastructure upgrades, and the use of robust planning policies to ensure this.</p> <p>Water supply pressures on Abberton Reservoir associated with growth in Chelmsford, although the current operational parameters and the modelling provisions of the Essex and Suffolk WRMP arguably make this unlikely. It is expected that effects can be reliably avoided with appropriate co-ordination of development and infrastructure upgrades, and the use of robust planning policies to ensure this.</p> <p>Recreational pressure in combination with other plans, particularly with regard to those sites associated with the Blackwater estuary and the Crouch and Roach estuaries.</p> <p>The HRA Screening of the Submission DPD identified Likely Significant Effects from four development control policies:</p> <p><i>DC3: Managing development density in different locations</i>, 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.</p>	

Chelmsford Local Plan
<p><i>DC54: Promotion of employment clusters</i>, 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.</p> <p><i>DC55: Location of business development</i>, 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.</p> <p><i>DC56: Industrial and warehouse development</i>, 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.</p> <p>Recommended policy changes requiring protection of internationally designated nature conservation sites were deemed sufficient to address these potential effects.</p> <p>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.</p>

Ipswich Local Plan 2011-2031 ⁴⁸	
Plan Owner /Competent Authority	Ipswich District Council
Related work HRA/AA	<p>Habitat Regulation Assessment of Pre-Submission modifications to the Ipswich Borough Council Core Strategy and Policies DPD Review (Proposed Submission stage)⁴⁹</p> <p>Habitats Regulations Assessment of Pre-Submission modifications to the Ipswich Borough Council Site Allocations and Policies (incorporating IP-One Area Action Plan) DPD – (Proposed Submission)⁵⁰</p>
Notes on Plan documents	<p>The Ipswich Local Plan, which comprises Core Strategy and Policies Development Plan Document (DPD) Review and Site Allocations and Policies was submitted to the Secretary of State for examination.</p> <p>The revised Local Development Scheme was approved by the Council on 27th February 2019 and came into effect on 19th March 2019.</p> <p>Development provided for includes 13,550 new houses and 12,500 new jobs by 2031.</p>
<p>Conclusions on potential effects of relevance to European sites within scope of HRA of Ipswich Local Plan</p> <p><i>HRA of Pre-Submission modifications to the Ipswich Borough Council Core Strategy and Policies DPD Review</i></p> <p>Policy CS7: The Amount of Housing Required was identified with potential to result in Likely Significant Effects as a result of an amendment to the policy, which could potentially change the amount and location of housing required and therefore change the impact of housing growth on European sites. The policy however was amended and found to have no Likely Significant Effect on European sites.</p> <p>No plans with exception to Ipswich Borough Site Allocations and Policies were found to have Likely Significant Effect, which was submitted for consultation alongside the Proposed Submission Core Strategy and Policies Development Plan Document Review consultation.</p> <p><i>Habitats Regulations Assessment of Pre-Submission modifications to the Ipswich Borough Council Site Allocations and Policies DPD</i></p> <p>Policy SP2: Land allocated for housing and policies map was identified with potential for Likely Significant Effects, due to planning permission, which have lapsed and, which were at the time of consultation of the Proposed Submission DPD included in policy SP3 have been moved to policy SP2. A review of all sites moved to policy SP2 as a Pre-Submission Main Modification were identified outside the area within which residents of housing walk to Orwell Country Park, which could affect the Stour and Orwell SPA/Ramsar and was therefore found to have no Likely Significant Effect and remained in line with conclusions of the December 2014 Appropriate Assessment.</p> <p>All Pre-Submission Main Modifications and Pre-Submission Additional Modifications to the Ipswich Borough Council Site Allocations and Policies DPD were found not likely to have a significant effect on any European site and it was concluded that there is no change to the conclusions of the Appropriate Assessment (December 2014) submitted for consultation alongside the Development Plan Document consultation.</p>	

⁴⁸ <https://www.ipswich.gov.uk/content/new-ipswich-local-plan-2011-2031>

⁴⁹ https://www.ipswich.gov.uk/sites/default/files/sucd12_-_core_strategy_hra_addendum_sept_2015.pdf

⁵⁰ https://www.ipswich.gov.uk/sites/default/files/sucd14_-_site_allocations_hra_addendum_sept_2015.pdf

Wivenhoe Neighbourhood Plan 2019-2033 ⁵¹	
Plan Owner /Competent Authority	The Wivenhoe Neighbourhood Plan Group
Related work HRA/AA	HRA Screening Assessment of Wivenhoe Neighbourhood Plan & Appropriate Assessment of the Wivenhoe Neighbourhood Plan
Notes on Plan documents	The Neighbourhood Plan was approved in a Referendum held on 2 May 2019. The Neighbourhood Plan will now be made part of Colchester Borough Council's local development plan.
Conclusions on potential effects of relevance to European sites within scope of HRA of Braintree Local Plan The HRA considered the potential impacts on recreation, loss of agricultural land and impacts to water courses. Following a detailed assessment, it was concluded that there were no likely significant effects on any European sites alone or in-combination.	

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. The plan sets out the broad locations where future mineral extraction and associated development will be preferred, and the areas where mineral extraction is discouraged, preferred sites and development management policies.
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 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"> • Providing for and promoting access by sustainable modes of travel to new development areas; • Improving public transport links within and between the Thames Gateway towns (including the A13 Passenger Transport Corridor and South Essex Rapid Transport (SERT) schemes);

⁵¹ <http://wivenhoeneighbourhoodplan.org.uk/wp-content/uploads/2019/03/WNP-Final-Report-Referendum-Version-1.pdf>

Essex Local Transport Plan 3 2011-2026 (LTP3)	
	<ul style="list-style-type: none">• Improving the availability of sustainable travel choices and raising public awareness of these through travel planning;• Addressing maintenance, signing and broken links in the cycle network to improve conditions for cyclists and create a safer atmosphere for cycling.• Improving the attractiveness and ease of use of public spaces to support regeneration;• Improving journey time reliability on strategic inter-urban routes including the A127, A129, A130 and the A13; <p>Improving access to London Gateway port and Southend Airport.</p>
Conclusions on potential effects of relevance to European sites within scope of HRA of Braintree Local Plan	
<p>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.</p>	