Braintree Local Plan

Habitat Regulations Assessment Report

Braintree District Council

Final report

Prepared by LUC

March 2026

Version	Status	Prepared	Checked	Approved	Date
1	Reg.18 (Final report)	K. Sydney A. Eardley M. Ngemoh	K. Sydney	D. Green J. Pearson	11.03.2026

EMS566057 FS566056 OHS627041

Land Use Consultants Limited

Registered in England. Registered number 2549296. Registered office: 250 Waterloo Road, London SE1 8RD. Printed on 100% recycled paper

Contents

Chapter 1
Introduction

1.1 LUC has been commissioned by Braintree District Council to carry out a Habitats Regulations Assessment (HRA) of its emerging Local Plan Review.

1.2 This HRA report assesses the Preferred Options (Regulation 18) version of the Local Plan Review - hereafter referred to as the Local Plan. The HRA will be published for consultation alongside the plan, as part of the Regulation 18 consultation.

Background to the Braintree District Local Plan Review

1.3 Braintree District's current Local Plan, the Braintree District Local Plan 2033 was adopted in 2021 (Section 1) and 2022 (Section 2); and covers the period to 2033. Section 1 is a strategic plan for North Essex, prepared jointly by Braintree District Council, Colchester Borough Council, and the Tendring District Council - the local planning authorities collectively known as the 'North Essex Authorities'. Section 2 contains further specific local policies and proposals applicable to Braintree district only.

1.4 Braintree District Council has decided to undertake a Local Plan Review to refresh and roll forward its policies, and plan for development to 2041. The Council has undertaken a call for sites (April-May 2024) and an Issues and Options consultation (March 2025).

1.5 The Local Plan Review 2041 Preferred Options version, which is the subject of this HRA, sets out a full draft of the Local Plan Review, including updated and new policies; and will be subject to Regulation 18 consultation.

1.6 Once adopted, the Local Plan will set out a new growth strategy for Braintree, describe where and how many new homes and jobs and how much infrastructure are to be provided as well as identifying areas for protection over the plan period.

The requirement to undertake Habitats Regulations Assessment of development plans

1.7 The requirement to undertake HRA of development plans was confirmed by the amendments to the Habitats Regulations published for England and Wales in 2007 **[See reference 1]**; the currently applicable version is the Habitats Regulations 2017, as amended **[See reference 2]**. When preparing the development plans, Braintree District Council is therefore required by law to carry out an HRA. Braintree District 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 Braintree District Council as the 'competent authority'. Braintree District Council will consider this work and would usually only progress a Plan if it considers that the Plan will not adversely affect the integrity **[See reference 3]** of any 'Habitats Site', as defined below (the exception to this would be where 'imperative reasons of overriding public interest' can be demonstrated). The requirement for authorities to comply with the Habitats Regulations when preparing a Plan is also noted in the Government's online Planning Practice Guidance (PPG) **[See reference 4]**.

1.8 HRA refers to the assessment of the potential effects of a development plan on one or more sites afforded the highest level of protection in the UK: SPAs and SACs. These were classified under European Union (EU) legislation but since 1 January 2021 are protected in the UK by the Habitats Regulations 2017 (as amended). Although the EU Directives from which the UK's Habitats Regulations originally derived are no longer binding, the Regulations still make reference to the lists of habitats and species that the sites were designated for, which are listed in annexes to the EU Directives:

- SACs are designated for particular habitat types (specified in Annex 1 of the EU Habitats Directive **[See reference 5]**) and species (Annex II). The listed habitat types and species (excluding birds) are those considered to be most in need of conservation at a European level. Before EU exit day, designation of SACs also had regard 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 UK's 'national site network'.
- SPAs are classified for rare and vulnerable birds (Annex I of the EU Birds Directive **[See reference 6]**), and for regularly occurring migratory species not listed in Annex I.

1.9 The term 'European sites' was previously commonly used in HRA to refer to 'Natura 2000' sites **[See reference 7]** and Ramsar sites (international designated under the Ramsar Convention). However, a Government Policy Paper **[See reference 8]** on changes to the Habitats Regulations 2017 post-Brexit states that:

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

1.10 Although Ramsar sites do not form part of the new national site network, Government guidance **[See reference 9]** states that:

> "Any proposals affecting the following sites would also require an HRA because these are protected by government policy:
>
> - proposed SACs

- potential SPAs
- Ramsar sites – wetlands of international importance (both listed and proposed)
- areas secured as sites compensating for damage to a European site."

1.11 Furthermore, the National Planning Policy Framework (NPPF) **[See reference 10]** and practice guidance **[See reference 11]** currently state that competent authorities responsible for carrying out HRA should treat Ramsar sites in the same way as SACs and SPAs. The legislative requirement for HRA does not apply to other nationally designated wildlife sites such as Sites of Special Scientific Interest or National Nature Reserves.

1.12 For simplicity, and in line with common usage, this report uses the term 'Habitats Site' to refer to all types of designated site within the 'national site network' and other sites (e.g. Ramsar sites) for which Government guidance requires an HRA.

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

Previous HRA work

1.14 There has not been any previous HRA assessment of the Local Plan Review. However, the adopted Local Plan was subject to HRA, which LUC undertook. The HRA of North Essex Authorities Local Plan (Section 1) was published in August 2020 **[See reference 12]**; and the HRA of the Braintree

Publication Local Plan (Section 2) was published in May 2017 **[See reference 13]**.

Structure of this report

1.15 This chapter has introduced the requirement to undertake HRA of the Local Plan. The remainder of the report is structured as follows:

- Chapter 2: Braintree Local Plan Review – summarises relevant parts of the Preferred Options (Reg.18) Local Plan Review which is the subject of this report.
- Chapter 3: Approach to HRA – sets out the approach used and the specific tasks undertaken during HRA Screening and outlines the methodology that will be used for the Appropriate Assessment as required.
- Chapter 4: Habitats Sites – describes the Habitats Sites in and around Braintree district and summarises their key vulnerabilities.
- Chapter 5: HRA Screening – describes the findings of the Screening stage of the HRA for the Reg.18 Local Plan Review.
- Chapter 6: Conclusions and Next Steps – summarises the HRA conclusions and describes the next steps to be undertaken.
- Appendix A: Habitats Sites Information – summarises key information about the characteristics of Habitats Sites considered in the HRA.
- Appendix B: Screening Matrix – presents the Screening matrices that have been used to screen the plan's policies and site allocations.
- Appendix C: Site Allocations Assessed in HRA – lists site allocations assessed in the HRA.

Chapter 2

Braintree Local Plan Review

2.1 The current version of the Local Plan, which this HRA assesses, is the Local Plan Review 2041 Preferred Options Consultation (Regulation 18) version, December 2025.

2.2 The Local Plan Review is intended to bring together the previous two sections of the Local Plan - Section 1 (adopted January 2021) and Section 2 (adopted January 2022) – and bring them up to date. The plan provides a framework for growth and new development across the district up to 2041.

2.3 The vision for the district, as set out in the plan is as follows:

> By 2041, the District will be the most successful in Essex. Jobs and businesses will have increased in both quantity and quality, making the District a desirable place to live and work.
>
> Housing growth has been achieved, with the expansion of the main town of Braintree providing sustainable, attractive new homes within a market town setting. Witham, Halstead, Kelvedon and Feering have also continued to expand, making the most of their excellent transport links to provide high-quality homes and new community facilities. Smaller scale growth will continue in other areas of the District, including Halstead, meeting the local needs of smaller, rural communities.
>
> The strategic transport routes of the Halstead link road, A120, A12, and rail routes from Braintree and Witham have been improved, allowing fast and reliable connections to London, London Stansted Airport, the east coast ports and other key regional centres. Developments in the District will have

been designed and built to the highest quality, making the best use of new technologies to ensure suitability and sustainability now and in the future. High-speed reliable broadband is accessible for all homes and businesses.

All residents in the District will have access to the highest quality community facilities including health and education provision and green infrastructure. Outstanding leisure facilities continue to be provided to ensure residents can make healthy choices, and retail and other community needs are met. The unique natural and historic environment continues to be protected and enhanced.

Braintree District continues to be an aspirational place to live with a successful economy, wide range of affordable, sustainable homes situated within a high-quality urban and rural landscape, all within easy reach of London and the wider region.

2.4 The vision is supported by objectives on the following topics: creating a successful economy; retail and town centres; housing need; transport infrastructure; broadband; education and skills; protection of the environment; good quality design; healthy communities; social infrastructure; sustainability; empowering local people.

2.5 The Local Plan Review comprises 88 policies (titled Policy LPR 1-88), which are grouped into three main parts: a prosperous district; creating better places; and natural environment. Policy LPR1 Spatial Strategy for Braintree District sets out the broad spatial strategy for the district, which concentrates development in the towns of Braintree, Halstead, Witham, and the A120/A12/Great Eastern Mainline corridor. The quantum of new development for the district as a whole (2026-2041), is defined in the following policies:

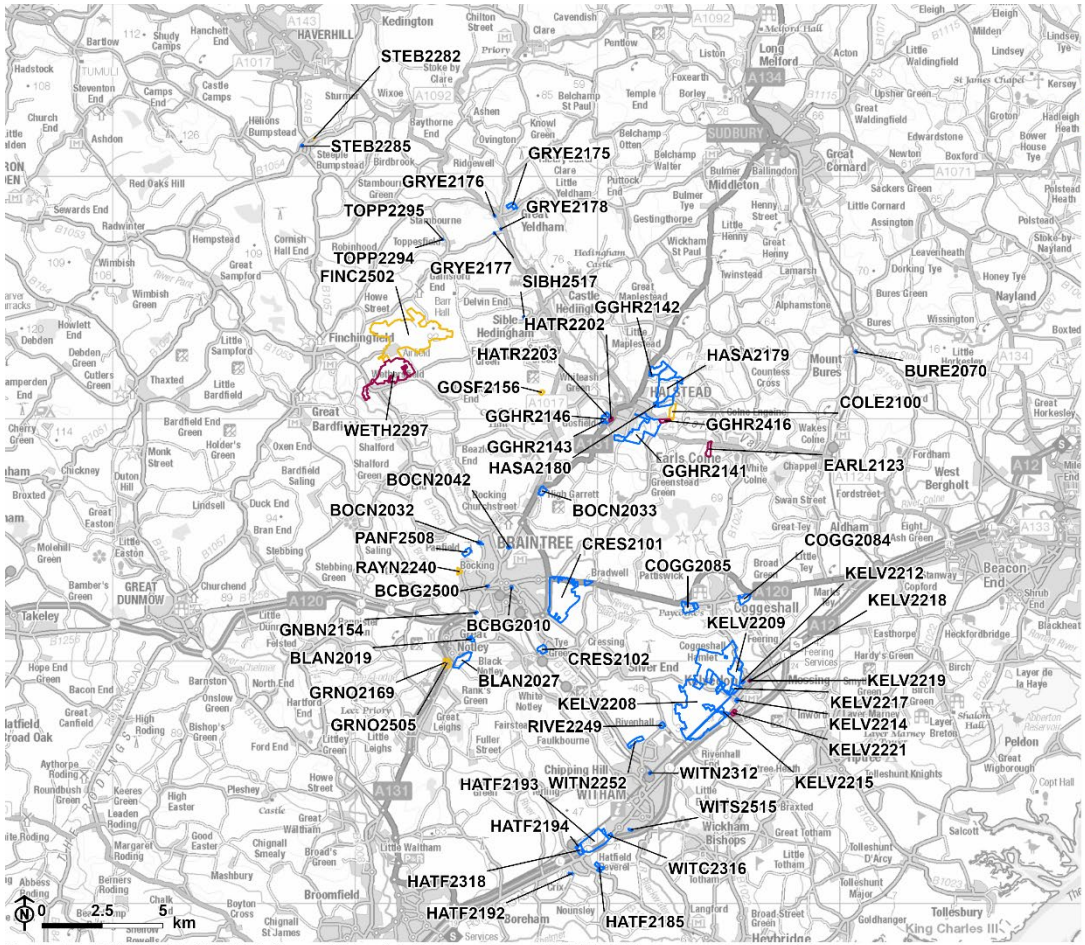
- Policy LPR3 Strategic Employment: 17,600sqm / 2.4ha office space; 90,000 sqm / 22.5ha research & development, industrial, storage and distribution uses.

- Policy LPR11 Retailing and Regeneration: 8,321 sqm retail & food/beverage; 2,800sqm leisure & cultural.
- Policy LPR18 Housing Provision and Delivery: a minimum of 18,959 homes.

2.6 This quantum of development is provided by 79 new site allocations (see Appendix B and Figure 2.1) and windfall development. Some of the policies are also associated with development in specific areas, most notably the strategic growth areas and employment policy areas (see Figure 2.2).

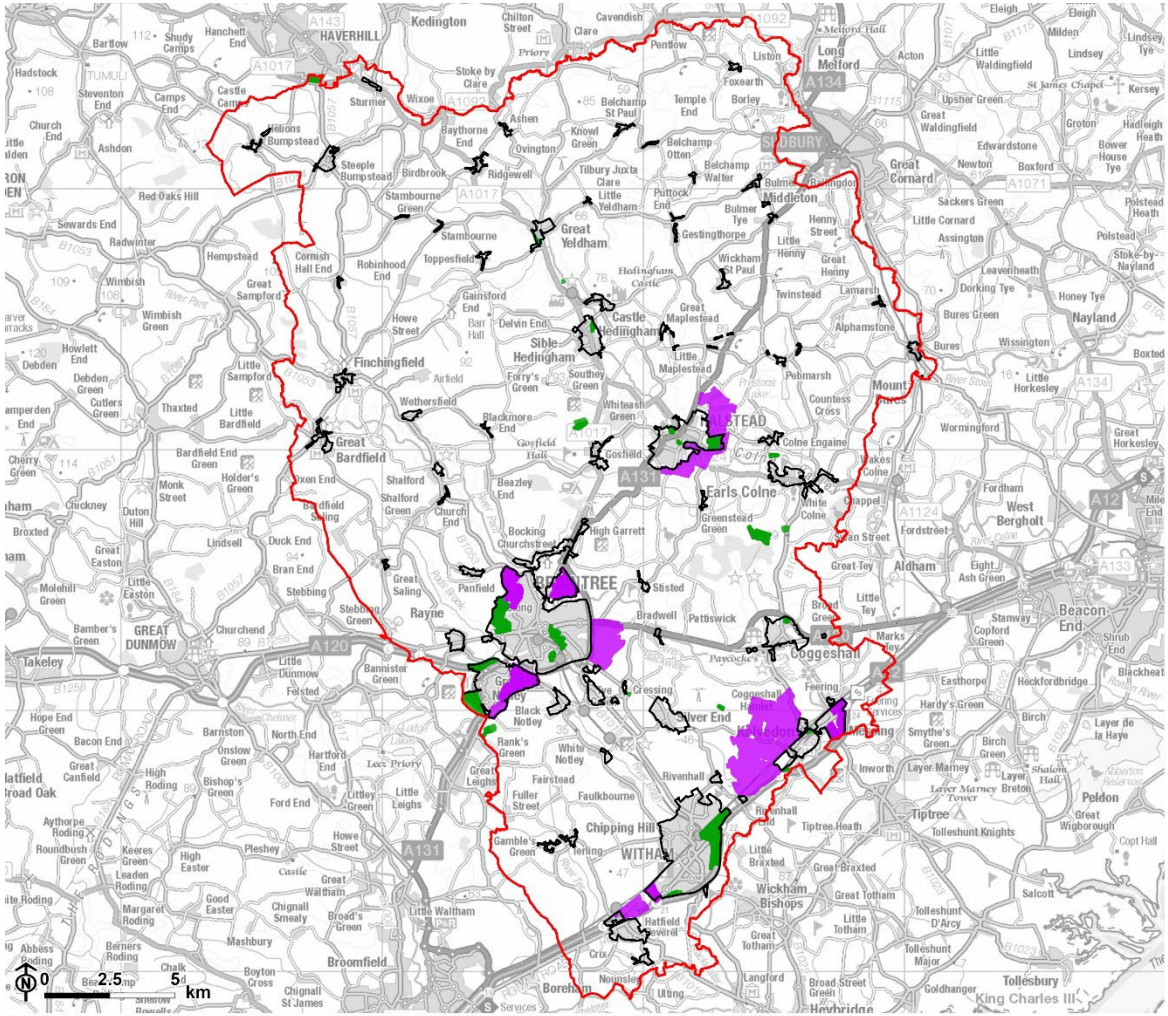
The Local Plan Review also rolls forward a number of existing allocations (in Appendix C of the plan). Most have already been completed or have planning permission, but there are 16 sites that have not yet been granted permission. Site allocations from the previous Local Plan have already been subject to HRA and are not assessed individually in this HRA; however, where they could contribute to in-combination effects with new allocations from the Local Plan Review, this is taken into account in the HRA.

Figure 2.1: Site allocations



Created by LUC - 12934_003_HRA_Figures/Figure 4.1 Site allocations - r2 09/03/2026

Figure 2.2: Strategic growth areas and employment policy areas



Created by LUC - 12934_003_HRA_Figures/Figure 4.2 Other potential areas for development 24/02/2026

Chapter 3
Approach to HRA

Stages of HRA

3.1 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 Habitats Site in question.

3.2 LUC has been commissioned by Braintree District Council to carry out HRA work on the Council's behalf, and the outputs will be reported to and considered by Braintree District Council, as the competent authority, before adopting the Plan.

3.3 The HRA also requires close working with Natural England as the statutory nature conservation body **[See reference** 14**]** 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

3.4 In assessing the effects of a Local Plan in accordance with Regulation 105 of the Conservation of Habitats and Species Regulations 2017 (as amended) (the 'Habitats Regulations'), 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, 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 [Habitats] site, either alone or in combination with other plans or projects (the 'Significance Test'). If yes, proceed to Step 3.
    - [Steps 1 and 2 are undertaken as part of Stage 1: HRA Screening, shown below]
- Step 3: Under Reg. 105(1), make an Appropriate Assessment of the implications for the European [Habitats] site in view of its current conservation objectives (the 'Integrity Test'). In so doing, it is mandatory under Reg. 105(2) to consult Natural England, and optional under Reg. 105(3) to take the opinion of the general public.
    - [This step is undertaken during Stage 2: Appropriate Assessment, shown below]
- 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 [Habitats] site.
    - [This step follows Stage 2 where a finding of 'no adverse effect' is concluded. If it cannot be it proceeds to Step 5 as part of Stage 3 of the HRA process.]
- Step 5: Under Reg. 107, if Step 4 is unable to rule out adverse effects on the integrity of a European [Habitats] site and no alternative solutions exist then the competent authority may nevertheless agree to the plan or project if it must be carried out for 'imperative reasons of overriding public interest' (IROPI).
    - [This step is undertaken during Stage 3: Assessment where no alternatives exist, and adverse impacts remain taking into account mitigation shown below]

Typical stages

3.5 This section 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 **[See reference** 15**]** **[See reference** 16**]** **[See reference** 17**]**.

Stage 1: HRA Screening

Task

- Description of the development plan and confirmation that it is not directly connected with or necessary to the management of Habitats Sites.
- Identification of potentially affected Habitats Sites and their conservation objectives **[See reference** 18**]**.
- Assessment of likely significant effects of the development plan alone or in combination with other plans and projects, prior to consideration of avoidance or reduction (‘mitigation’) measures **[See reference** 19**]**.

Outcome

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

Stage 2: Appropriate Assessment (where Stage 1 does not rule out likely significant effects)

Task

- Information gathering (development plan and Habitats Sites **[See reference** 20**]**).
- Impact prediction.
- Evaluation of development plan impacts in view of conservation objectives of Habitats Sites.
- Where impacts are considered to directly or indirectly affect qualifying features of Habitats Sites, identify how these effects will be avoided or reduced (‘mitigation’).

Outcome

- Appropriate assessment report describing the plan, Habitats Site baseline conditions, the adverse effects of the plan on the Habitats 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

Task

- Identify ‘imperative reasons of overriding public interest’ (IROPI).
- Demonstrate no alternatives exist.
- Identify potential compensatory measures.

Outcome

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

3.6 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 so called ‘imperative reasons of overriding public interest’ (IROPI) are likely to be justified only very occasionally and would involve engagement with the Government.

Case law

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

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

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

3.9 In light of the above, the HRA Screening stage does not rely upon avoidance or mitigation measures to draw conclusions as to whether the Local Plan could result in likely significant effects on Habitats Sites, with any such measures being considered at the Appropriate Assessment stage as relevant.

3.10 This HRA also considers the Holohan v An Bord Pleanala (November 2018) judgment 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."

3.11 In undertaking this HRA, LUC has 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 Habitats Sites, including the potential for complex interactions and dependencies. In addition, the potential for offsite impacts, such as through impacts to functionally linked habitats, and or species and habitats located beyond the boundaries of Habitats Site, but which may be important in supporting the ecological processes of the qualifying features, has also been considered in this HRA.

3.12 Similarly, effects on both qualifying and supporting habitats and species on functionally linked land (FLL; another term for functionally linked habitats) or habitat have been considered in the HRA, in line with the High Court judgment in RSPB and others v Secretary of State and London Ashford Airport Ltd [2014 EWHC 1523 Admin] (paragraph 27), which stated that:

> "There is no authority on the significance of the non-statutory status of the FLL. However, the fact that the FLL was not within a protected site does not mean that the effect which a deterioration in its quality or function could have on a protected site is to be ignored. The indirect effect was still protected. Although the question of its legal status was mooted, I am satisfied… that while no particular legal status attaches to FLL, the fact that land is functionally linked to protected land means that the indirectly adverse effects on a protected site, produced by effects on FLL, are scrutinised in the same legal framework just as are the direct effects of acts carried out on the protected site itself. That is the only sensible and purposive approach where a species or effect is not confined by a line on a map or boundary fence. This is particularly important where the boundaries of designated sites are drawn tightly as may be the UK practice."

3.13 In addition to this, the HRA takes into consideration the 'Wealden' judgment from the CJEU.

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

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

3.16 The HRA also takes into account the Grace and Sweetman (July 2018) judgment from the CJEU which stated that:

> "there is a distinction to be drawn between protective measures forming part of a project and intended avoid or reduce any direct adverse effects that may be caused by the project in order to ensure that the project does not adversely affect the integrity of the area, which are covered by Article 6(3), and measures which, in accordance with Article 6(4), are aimed at compensating for the negative effects of the project on a protected area and cannot be taken into account in the assessment of the implications of the project"
>
> "As a general rule, any positive effects of the future creation of a new habitat, which is aimed at compensating for the loss of area and quality of that habitat type in a protected area, are highly difficult to forecast with any degree of certainty or will be visible only in the future"
>
> "A mitigation strategy may only be taken into account at AA (a.6(3)) where the competent authority is "sufficiently certain that a measure will make an

effective contribution to avoiding harm, guaranteeing beyond all reasonable doubt that the project will not adversely affect the integrity of the area"

- Otherwise it falls to be considered to be a compensatory measure to be considered under a.6(4) only where there are "imperative reasons of overriding public interest""

3.17 The Appropriate Assessment of the Local Plan will therefore only consider the existence of measures to avoid or reduce its direct adverse effects (mitigation) if the expected benefits of those measures are beyond reasonable doubt at the time of the assessment.

Identifying types of potential impact from the Local Plan

3.18 Development such as new homes, employment space and infrastructure that is associated with development plans has the potential to impact upon Habitats Sites in a variety of ways. The following potential impacts could arise as a result of the types of development provided for by the Local Plan:

- Physical damage or loss of habitat;
- Non-physical disturbance (noise, vibration, light);
- Air pollution (dust, vehicle emissions or industrial emissions);
- Recreation pressure; and
- Changes to water quality and quantity (due to abstraction, wastewater treatment, or direct pollution).

3.19 For each of the Local Plan's policies, consideration is given to the type of development the policy could result in, impacts that could arise from that type of development, and then whether there is an impact pathway to any Habitats Sites sensitive to that impact, as described below. Where a policy provides for a

range of scales of development, depending on the spatial option pursued, consideration is given to any difference in potential scale of impact.

Identifying Habitats Sites that may be affected and their conservation objectives

3.20 In order to begin the search of Habitats Sites that could potentially be affected by a development, it is established practice in HRA to consider sites within the local planning authority area covered by the plan, and other sites that may be affected beyond this area.

3.21 A distance of 20km from the boundary of the plan area has been used in the first instance, and in line with the HRAs of neighbouring authorities, to identify Habitats Sites with the potential to be affected by the proposals within a development plan. Consideration is then given to whether any more distant Habitats Sites may be functionally connected to the plan area, for example through hydrological pathways or recreational visits by residents. The 20km distance has been agreed with Natural England for HRAs elsewhere and is considered precautionary.

3.22 The assessment also takes into account areas that may be functionally linked to the Habitats Sites. The term ‘functional linkage’ can be used to refer to the role or ‘function’ that land or other habitats beyond the boundary of a Habitats Site might fulfil in supporting the species populations for which the site was designated or classified. Such an area is therefore ‘linked’ to the site in question because it provides a (potentially important) role in maintaining or restoring a protected population at favourable conservation status.

3.23 While the boundary of a Habitats Site will usually be drawn to include key supporting habitat for a qualifying species, this cannot always be the case where the population for which a site is designated or classified is particularly

mobile. Individuals of the population will not necessarily remain in the site all the time. Sometimes, the mobility of qualifying species is considerable and may extend so far from the key habitat that forms the SAC or SPA that it would be entirely impractical to attempt to designate or classify all of the land or sea that may conceivably be used by the species **[See reference** 21**]**. HRA therefore considers whether any nearby (or linked) Habitats Sites make use of functionally linked habitats, and the impacts that could affect those habitats.

3.24 The Habitats Sites and functionally linked habitats relevant to this HRA are described in Chapter 4, with further detailed information about each Habitats Site in Appendix B. These are described with reference to Standard Data Forms for the SPAs and SACs, and Natural England's Site Improvement Plans **[See reference** 22**]**. Natural England's conservation objectives **[See reference** 23**]** and any supplementary advice on conserving and restoring site features for the SPAs and SACs have also been reviewed. All of the conservation objectives state that site integrity must be maintained or restored by maintaining or restoring the habitats of qualifying features, the supporting processes on which they rely, and populations of qualifying species.

3.25 Together, the text of the Local Plan and information on the Habitats Sites have been used to confirm that the plan is not directly connected to or necessary for the management of any of the sites (Screening stage 3).

Assessment of 'likely significant effects'

3.26 As required under Regulation 105 of the Conservation of Habitats and Species Regulations 2017 (as amended) (the 'Habitats Regulations') **[See reference** 24**]**, 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 Habitats Sites.

3.27 Consideration has been given to the potential for the development proposed to result in significant effects of the types listed within paragraph 3.22.

Interpretation of ‘likely significant effect’

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

3.29 In the Waddenzee case **[See reference** 25**]**, the European Court of Justice ruled on the interpretation of Article 6(3) of the Habitats Directive (translated into Reg. 102 in the Habitats Regulations), including that:

> An effect should be considered ‘likely’, “if it cannot be excluded, on the basis of objective information, that it will have a significant effect on the site” (paragraph 44). An effect should be considered ‘significant’, “if it undermines the conservation objectives” (paragraph 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” (paragraph 47).

3.30 An opinion delivered to the Court of Justice of the European Union **[See reference** 26**]** 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.”

3.31 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’.

3.32 The HRA Screening assessment therefore considers whether the Local Plan policies could have likely significant effects either alone or in combination.

Screening assessment

3.33 A risk-based approach, involving the application of the precautionary principle, has been adopted in the assessment, such that a conclusion of ‘no significant effect’ has only been reached where it is considered unlikely, based on current knowledge and the information available, that a Local Plan policy or site allocation would have a significant effect on a Habitats Site.

3.34 An HRA Screening has been undertaken (Appendix C) that considers the potential for likely significant effects resulting from each policy in the Publication Local Plan, and the site allocations that may contribute to each type of impact. The screening groups policies into the following categories, with explanations as to why the policies are in these categories:

- Policies screened out as there is no impact pathway;
- Policies screened out as there is an impact pathway but there will be no likely significant effects, e.g. due to the scale of development;
- Policies screened in as there are likely significant effects; and
- Policies which provide mitigation for impacts arising from Local Plan policies.

3.35 The Screening assessment is conducted without taking mitigation (e.g. embedded in policy) into account, in accordance with the ‘People over Wind’ judgment.

3.36 For site allocations, in Appendix C, criteria are defined for the locations of development in which likely significant effects could occur. Site allocations meeting those criteria are listed.

3.37 For some types of impacts, the potential for likely significant effects has been determined on a proximity basis, using GIS data to determine the proximity of potential development locations to the Habitats 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, where assumptions have been made, these are set out in Chapter 5.

In-combination effects

3.38 Regulation 105 of the Habitats Regulations 2017 requires an Appropriate Assessment where "a land use plan is likely to have a significant effect on a Habitats 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, the Screening assessment must consider whether any impacts identified from the Local Plan may combine with other plans or projects to give rise to significant effects in-combination.

3.39 Where the Local Plan is likely to have an effect on its own e.g. due to water pollution (due to impact pathways being present) but it is not likely to be significant, the in-combination assessment at Screening stage needs to determine whether there may also be the same types of effect from other plans or projects that could combine with the Local Plan to produce a significant effect. If so, this likely significant effect (e.g. water pollution) arising from the Local Plan in combination with other plans or projects, would then need to be considered through the Appropriate Assessment stage to determine if water pollution would have an adverse effect on integrity of the relevant Habitats Site. Where the Screening assessment concludes that there is no impact pathway between development proposed in the Local Plan and the conditions necessary to maintain qualifying features of a Habitats Site, then there will be no in-

combination effects to assess at the Screening or Appropriate Assessment stage. Where the Screening assessment concludes that likely significant effects from the Local Plan alone cannot be ruled out, this potential effect is carried forward for more detailed consideration (including of in-combination effects) at the Appropriate Assessment stage and no consideration of in-combination effects is necessary at the Screening stage. This approach accords with recent guidance on HRA **[See reference** 27**]**.

3.40 The in-combination assessment will focus on planned growth (including housing, employment, transport, minerals and waste) around the affected site, or along the impact corridor, for example, if impacts could arise as a result of changes to a waterway, then planned growth in local authorities along that waterway will be considered. Where relevant, any strategic projects in the area that could have in-combination effects with the Local Plan will also be identified and reviewed.

3.41 The online HRA Handbook suggests the following plans and projects may be relevant to consider as part of the in-combination assessment:

- Applications lodged but not yet determined, including refusals subject to an outstanding appeal or legal challenge;
- Projects subject to periodic review e.g. annual licences, during the time that their renewal is under consideration;
- Projects authorised but not yet started;
- Projects started but not yet completed;
- Known projects that do not require external authorisation;
- Proposals in adopted plans; and
- Proposals in draft plans formally published or submitted for final consultation, examination or adoption.

3.42 The need for in-combination assessment also arises at the Appropriate Assessment stage, as discussed in the Appropriate Assessment section below.

Appropriate Assessment

3.43 Following the Screening stage, if likely significant effects on Habitats Sites are unable to be ruled out, the plan-making authority is required under Regulation 105 of the Habitats Regulations to make an 'Appropriate Assessment' of the implications of the plan for Habitats Sites, in view of their conservation objectives. Appropriate Assessment considers the impacts of the plan (either alone or in combination with other projects or plans) on the integrity of Habitats Sites with respect to their conservation objectives and to their structure and function This involves detailed consideration of plans and projects with the potential for in-combination effects, where relevant.

3.44 Where likely significant effects in-combination cannot be ruled out at the Screening stage, the Appropriate Assessment gathers the information necessary to consider these, for example traffic data for air pollution, or housing provisions and major site allocations in neighbouring authorities for recreation pressure.

3.45 Appropriate Assessment also identifies potential mitigation measures where adverse effects on integrity cannot be ruled out.

Assessing the effects on site integrity

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

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

3.48 A conclusion needs to be reached as to whether or not the Local Plan would adversely affect the integrity of a Habitats Site. Assessing effects on a site's integrity involves considering whether the predicted impacts of the Local Plan policies and/or sites (either alone or in combination) have the potential to:

- Cause delays to the achievement of conservation objectives for the site;
- Interrupt progress towards the achievement of conservation objectives for the site;
- Disrupt those factors that help to maintain the favourable conditions of the site;
- Interfere with the balance, distribution and density of key species that are the indicators of the favourable condition of the site;
- Cause changes to the vital defining aspects (e.g. nutrient balance) that determine how the site functions as a habitat or ecosystem;
- Change the dynamics of relationships that define the structure or function of the site (e.g. relationships between soil and water, or animals and plants);
- Interfere with anticipated natural changes to the site;
- Reduce the extent of key habitats or the population of key species;
- Reduce the diversity of the site;
- Result in disturbance that could affect the population, density or balance between key species;
- Result in fragmentation; and
- Result in the loss of key features **[See reference** 28**]**.

3.49 The conservation objectives for each SAC and SPA (Appendix B) are generally to maintain the qualifying features in favourable condition. Natural England does not define conservation objectives for Ramsar sites, but these can often be inferred from those for co-located SAC or SPA features. The Site Improvement Plans for each site provide a high-level overview of the issues (both current and predicted) affecting the condition of the designated features on the site(s) and outline the priority measures required to improve the condition of the features. Supplementary Advice to the Conservation Objectives is also available from Natural England which provides the ecological characteristics of designated species and habitats within a Habitats Site. However, supplementary advice is not available for all Habitats Sites. An Appropriate Assessment draws on these to help to understand what is needed to maintain the integrity of the Habitats Sites.

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

Chapter 4

Habitats Sites relevant to the HRA

4.1 The following Habitats Sites are within 20km of the district (see Figure 4.1).

SACs:

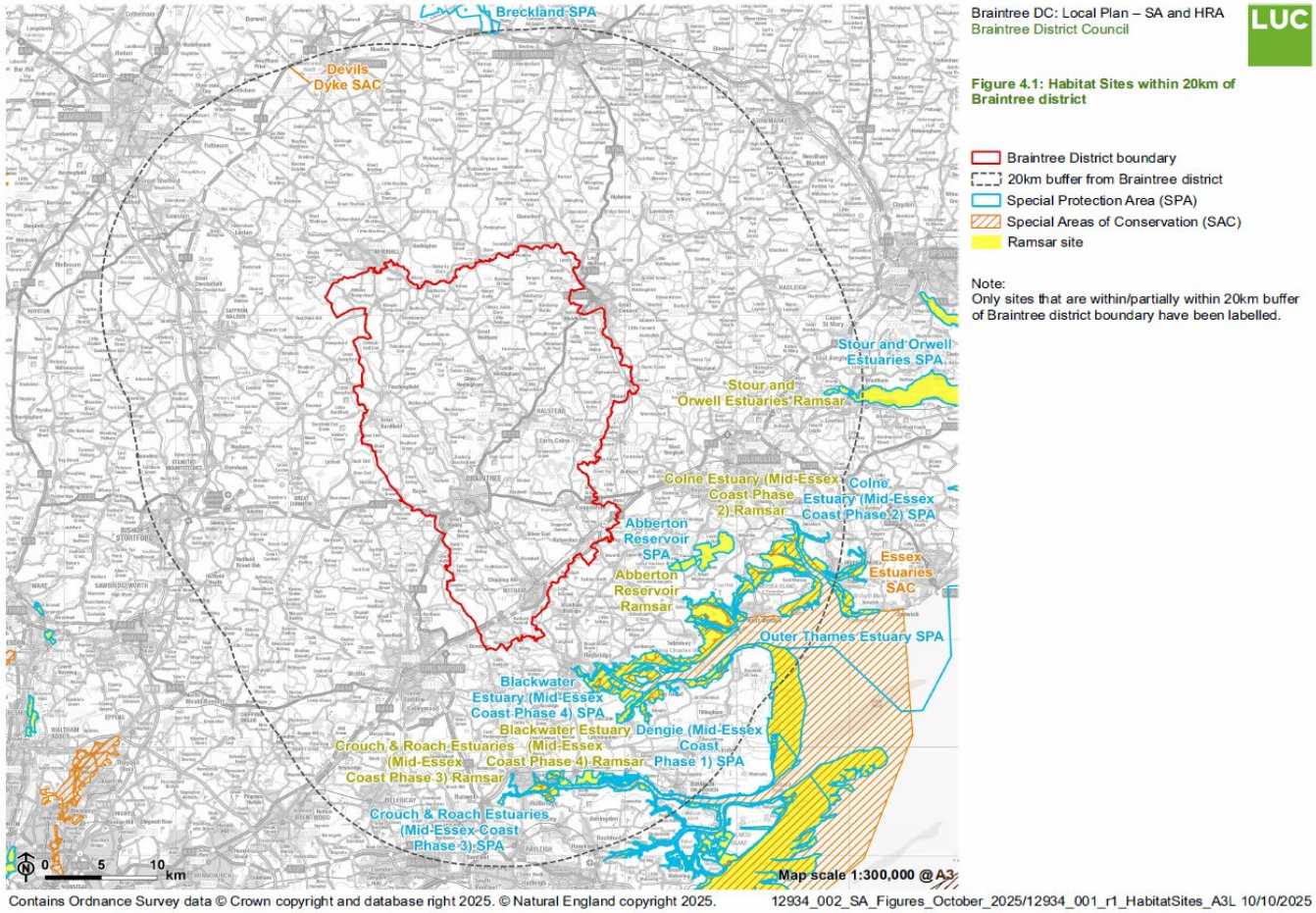
- Devil's Dyke SAC – c.18.0km northwest.
- Essex Estuaries SAC – c.4.0km east/southeast. Overlaps with several SPA/Ramsar sites; see below.

SPAs and Ramsar sites:

- Abberton Reservoir SPA & Ramsar site – c.5.5 km southeast. The SPA and Ramsar have the same boundary.
- Blackwater Estuary (Mid-Essex Coast Phase 4) SPA & Ramsar site – c.4.1km southeast. The SPA and Ramsar have the same boundary and overlap with part of the Essex Estuaries SAC.
- Breckland SPA – c.19.9km north.
- Colne Estuary (Mid-Essex Coast Phase 2) SPA & Ramsar site – c.12.0km east. The SPA and Ramsar have the same boundary and overlap with part of the Essex Estuaries SAC.
- Crouch & Roach Estuaries (Mid – Essex Coast Phase 3) SPA & Ramsar site – c.11.7km south. The SPA and Ramsar have the same boundary and overlap with part of the Essex Estuaries SAC.
- Dengie (Mid-Essex Coast Phase 1) SPA & Ramsar site – c.15.1km southeast. The SPA and Ramsar have the same boundary and overlap with part of the Essex Estuaries SAC.
- Stour and Orwell Estuaries SPA & Ramsar site – c.16.6km east. The SPA and Ramsar have the same boundary.

4.2 Braintree district is hydrologically connected to Habitats Sites further than 20km from the district boundary, via the estuarine SAC, SPA and Ramsar sites. However, these are dynamic environments (e.g. the offshore Outer Thames SPA) and are not considered likely to be significantly affected by development in Braintree district. There are no additional Habitats Sites beyond 20km that need to be scoped in.

Figure 4.1: Habitats Sites within 20km of Braintree district



12934_002_SA_Figures_October_2025/12934_001_r1_HabitatSites_A3L 10/10/2025

Functionally linked habitats

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

4.4 The following Habitats Sites are designated for birds that may rely on habitats outside the SPA/Ramsar boundaries:

- Abberton Reservoir SPA & Ramsar site;
- Blackwater Estuary (Mid- Essex Coast Phase 4) SPA & Ramsar site;
- Breckland SPA;
- Colne Estuary (Mid-Essex Coast Phase 2) SPA & Ramsar site;
- Crouch & Roach Estuaries (Mid – Essex Coast Phase 3) SPA & Ramsar site;
- Dengie (Mid-Essex Coast Phase 1) SPA & Ramsar site; and
- Stour & Orwell Estuaries SPA and Ramsar site.

4.5 Some of the Habitats Sites are also designated for invertebrates; however they are species associated with the sites' estuarine habitats (for example saltmarsh and mudflats), which are all within the Ramsar boundaries. Functionally linked habitats associated with these species therefore do not need to be considered further in this HRA:

- Blackwater Ramsar: various beetles, damselfly, flies, and spiders.
- Dengie Ramsar: a weevil, horsefly, and spider.

4.6 The estuary SPA and Ramsar sites, and Abberton Reservoir are a mix of wetland and associated habitats that support many of the same species. Table 4.1 identifies the bird species that are qualifying features (marked with a dot) of the SPA and Ramsar sites.

Table 4.1: Qualifying bird species present at the estuary/wetland SPA/Ramsar sites

Species	Abberton	Blackwater	Colne	Crouch & Roach	Dengie	Stour & Orwell
Black-tailed godwit		•				•
Common coot	•					
Common greenshank	•					
Common goldeneye	•					
Common pochard	•	•	•			
Common redshank			•			•
Common shelduck		•				•
Curlew						•
Dark-bellied brent goose		•	•	•	•	•
Dunlin		•				•
Eurasian teal	•					
Eurasian wigeon	•					•
Gadwall	•					
Goldeneye						•
Golden plover	•	•	•			
Great cormorant	•					•
Great crested grebe	•					•

Species	Abberton	Blackwater	Colne	Crouch & Roach	Dengie	Stour & Orwell
Grey plover		•			•	•
Hen harrier		•	•		•	
Lapwing						•
Little tern		•	•			
Mute swan	•					
Northern shoveler	•					
Oystercatcher						•
Pied avocet	•	•	•			
Pintail						•
Red knot					•	•
Ringed plover		•	•			•
Ruff	•	•				
Spotted redshank	•					
Tufted duck	•					
Turnstone						•
Waterbird assemblage	•	•	•	•	•	

4.7 Although some of these species make use of habitats outside the SPA/Ramsar boundaries, for example arable fields or grassland, these tend to be near to the estuarine/wetland habitats that have attracted them. Based on other HRA work in North Essex **[See reference** 29**]** and previous discussion with Natural England, most of these species are considered unlikely to be reliant upon offsite habitats located further than 2km from the SPA/Ramsar sites. The exceptions are golden plover and lapwing, which may make use of arable field habitats for feeding, within 15km of the SPA/Ramsar sites (Abberton Reservoir, Blackwater Estuary, Colne Estuary and Stour & Orwell Estuaries).

4.8 The estuarine/wetland SPA/Ramsar sites are all further than 2km from Braintree district; therefore, functionally linked habitat used by most bird species identified in Table 4.1 will not occur within the plan area. However, habitat used by golden plover or lapwing may be present within the plan area.

4.9 Breckland SPA is designated for stone curlew, European nightjar, and woodlark. Nightjar and woodlark make use of heathland, acid grassland and clearings within rotationally managed (i.e. regularly cleared and re-planted) woodland. Stone curlews have a preference for heathland and open ground within arable areas. As with the estuary/wetland birds, these species may make use of habitats outside the SPA boundary (e.g. arable land); however important functionally linked habitats are likely to occur within 2km of the SPA.

4.10 Breckland SPA is further than 2km from Braintree district; therefore, functionally linked habitat used by its bird species will not occur within the plan area.

Chapter 5

Screening Assessment

5.1 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 Habitats Sites within 20km (see also Appendix C).

HRA Screening of policies

5.2 The following policies have been screened in as they specify a type and/or location of development that is likely to result in significant effects, either alone or in combination with other plans or projects:

- Policy LPR 3 Strategic Employment;
- Policy LPR 4 Location of Employment Land;
- Policy LPR 5 Employment Policy Areas;
- Policy LPR 6 Kelvedon Park;
- Policy LPR 8 Business Parks;
- Policy LPR 10 Tourist Development within the Countryside;
- Policy LPR 11 Retailing and Regeneration;
- Policy LPR 16 Retail Warehouse Development;
- Policy LPR 17 Retail Site Allocations;
- Policy LPR 18 Housing Provision and Delivery;
- Policy LPR 19 SGL - Hayeswood, East of Great Notley, South of Braintree;
- Policy LPR 20 SGL - Land East of Broad Road, Braintree;
- Policy LPR 21 SGL - Former Towerlands Park Site;

- Policy LPR 22 SGL - Panfield Lane, North West Braintree;
- Policy LPR 23 SGL - East of Braintree;
- Policy LPR 24 SGL - Land South and North-East of Halstead (Within Greenstead Green and Cole Engaine Parish);
- Policy LPR 25 SGL - Land at South East Feering;
- Policy LPR 26 SGL Kings Dene – North, West and South West of Kelvedon;
- Policy LPR 27 SGL - Wood End Farm, Witham;
- Policy LPR 28 Land North of the A12, Hatfield Peverel;
- Policy LPR 29 Comprehensive Redevelopment Area - B&M Retail Unit, Rayne Road;
- Policy LPR 30 Comprehensive Redevelopment Area - Land East of Halstead High Street;
- Policy LPR 31 Comprehensive Redevelopment Area - Factory Lane West/Kings Road, Halstead;
- Policy LPR 32 Comprehensive Redevelopment Area - Coggeshall Football Club;
- Policy LPR 33 Comprehensive Redevelopment Area - Kings Chase, Witham;
- Policy LPR 34 Comprehensive Redevelopment Area - Cut Throat Lane Carpark, Witham;
- Policy LPR 35 Comprehensive Redevelopment Area - Newlands Precinct, Witham;
- Policy LPR 36 Comprehensive Redevelopment Area - Rickstones Neighbourhood Centre, Witham;
- Policy LPR 37 Land on the East Side of the A131 High Garrett;
- Policy LPR 41 Specialist Housing;
- Policy LPR 42 Specialist Housing – Mount Hill, Halstead;

- Policy LPR 44 Gypsy and Traveller and Travelling Showpersons' Accommodation;
- Policy LPR 54 Transport Related Policy Areas;
- Policy LPR 61 Equestrian Facilities;
- Policy LPR 70 Educational Establishments;
- Policy LPR 71 Community Services and Facilities; and
- Policy LPR 83 Renewable Energy Schemes.

5.3 The remainder of the policies in the Local Plan Review have been screened out, either because there is no impact pathway; or because the scale of development is such that there will not be significant effects.

5.4 Further details on the policies screening are provided in Appendix C.

HRA Screening of impacts

Physical damage or loss of habitat

5.5 Any development resulting from the Local Plan would take place within the Braintree district plan area; therefore, only Habitats Sites within the boundary could be affected by physical damage or loss of habitat within the site boundaries. However, there are no Habitats Sites within the district.

5.6 Habitats used by golden plover or lapwing may be present within the plan area, within 15km of a SPA/Ramsar for which they are a qualifying species. As these species make use of arable field habitats, it is only greenfield sites that have the potential to contain functionally linked habitats. The following site allocations are greenfield sites (that do not yet have planning permission) within 15km of a Habitats Site designated for golden plover or lapwing:

- Lapwing (Stour & Orwell Estuaries SPA): No site allocations.

- Golden plover (Abberton SPA, Blackwater Estuary SPA, and Colne Estuary SPA): BURE2070, COGG2084, CRES2102, EARL2123, HATF2192, HATF2193, HATF2194, KELV2208, KELV2209, KELV2212, KELV2214, KELV2215, KELV2217, RIVE2249, and WITN2252.

5.7 Windfall development could also fall within 15km of these Habitats Sites.

5.8 Although the habitats used by golden plover or lapwing are common and the loss of habitat at a single site may not have a significant effect on the SPA/Ramsar population, the cumulative loss of a number of sites may be significant. In combination effects of habitat loss may occur due to development associated with other plans or projects, including site allocations from the previous Braintree Local Plan that have not yet been permitted/built (but have previously been subject to HRA).

5.9 The policies that would result in development on greenfield land within these areas are:

- Policy LPR 3 Strategic Employment;
- Policy LPR 4 Location of Employment Land;
- Policy LPR 6 Kelvedon Park;
- Policy LPR 10 Tourist Development within the Countryside;
- Policy LPR 18 Housing Provision and Delivery;
- Policy LPR 25 SGL - Land at South East Feering;
- Policy LPR 26 SGL Kings Dene – North, West and South West of Kelvedon ;
- Policy LPR 27 SGL - Wood End Farm, Witham;
- Policy LPR 28 Land North of the A12, Hatfield Peverel;
- Policy LPR 32 Comprehensive Redevelopment Area - Coggeshall Football Club;

- Policy LPR 44 Gypsy and Traveller and Travelling Showpersons' Accommodation;
- Policy LPR 54 Transport Related Policy Areas;
- Policy LPR 61 Equestrian Facilities;
- Policy LPR 71 Community Services and Facilities; and
- Policy LPR 83 Renewable Energy Schemes.

There is the potential for likely significant effects due to loss of functionally linked habitat used by birds from Abberton SPA, Blackwater Estuary SPA, Colne Estuary SPA, or Stour & Orwell Estuaries SPA). This topic is screened in for further assessment. This impact would be due to the Local Plan in combination with other plans/projects.

Non-physical disturbance

5.10 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 Habitats 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.

5.11 It is 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 Habitats Site with qualifying features sensitive to these disturbances. There are no Habitats Sites within the district.

5.12 However, as with physical damage or loss of habitat, functionally linked habitats used by golden plover or lapwing may be affected by non-physical disturbance. Temporary noise, vibration or light pollution (e.g. during construction) is unlikely to have a likely significant effect on functionally linked habitats; however permanent changes may make a habitat unsuitable for use by these species. The policies and site allocations identified in paragraphs 5.6 to 5.9 are also relevant for this impact pathway.

There is the potential for likely significant effects due to non-physical disturbance at functionally linked habitat used by birds from Abberton SPA, Blackwater Estuary SPA, Colne Estuary SPA, or Stour & Orwell Estuaries SPA). This topic is screened in for further assessment. This impact would be due to the Local Plan in combination with other plans/projects.

Air pollution

5.13 Air pollution is most likely to affect Habitats 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 due to 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.

5.14 Air pollution is unlikely to affect the functionally linked habitats that may be within or near the plan area, to the extent that there would be significant impacts on bird populations within the SPA/Ramsar sites. Air pollution would need to cause habitats to deteriorate at several sites, such that feeding opportunities were lost, for this to be significant.

Dust

5.15 Dust can arise during construction works or due to extraction/excavation from the ground; and poses risks to habitats and plants from smothering, for example. Large dust particles mostly deposit close to the source and the assumption is that the vast majority of dust deposition occurs within 100m, although some smaller particles may travel up to 200-500m **[See reference 30]**. Therefore, significant effects on Habitats Sites from dust are unlikely beyond 100m. There are no Habitats Sites within 100m of the plan area.

There are no likely significant effects due to dust, as there is no impact pathway. This topic is screened out of further assessment.

Vehicle emissions

5.16 Increases in nitrogen deposition, nitrogen oxides (NOx), ammonia (NH3) and acid deposition can all arise from vehicle emissions. Deposition of nitrogen compounds may lead to both soil and freshwater acidification, and NOx can cause eutrophication of soils and water.

5.17 The JNCC's 'Guidance on decision making thresholds for air pollution' **[See reference 31]** states that "For the purpose of decision-making, unless local circumstances support a wider zone, plan HRA should take account of the potential effects of traffic emissions on European sites located within 10 km of the plan boundary".

5.18 Based on the Highways Agency Design Manual for Road and Bridges (DMRB) **[See reference 32]** LA105 Air Quality (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.

5.19 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.

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

5.21 Often, it is only those roads forming part of the primary road network (motorways and ‘A’ roads) that are likely to experience any significant increases in vehicle traffic as a result of development (i.e. greater than 1,000 AADT). However, minor (‘B’) roads can also experience significant increases in traffic, if they form part of a key route to/from new development.

5.22 There are no motorways/A roads within 10km of the district and within 200m of a Habitat Site. However, the B1026 has the potential to exceed screening criteria at the following locations:

- Blackwater Estuary (Mid Essex Coast Phase 4) SPA & Ramsar and Essex Estuaries SAC: B1026 at Maldon
- Abberton Reservoir SPA/Ramsar: B1026 near Layer-de-la-Haye

5.23 The Site Improvement Plans for Blackwater Estuary SPA and Essex Estuaries SAC identify risks from nitrogen deposition, which exceeded the relevant critical loads for coastal dune habitats used by breeding terns at the time that the Site Improvement Plans were written (2014 for the SPA and 2015 for the SAC). The Supplementary Advice for Conservation Objectives for the SPA and SAC set a target to maintain air pollutant levels at or below the qualifying features' relevant critical loads, in order to maintain supporting habitats on which the qualifying bird species rely.

5.24 Information on critical loads on the Air Pollution Information System (APIS **[See reference** 33**]**) for the SPA indicate that it is only little tern habitats (coastal dunes) that are sensitive to nitrogen deposition, but other qualifying features of the SPA (and Ramsar) rely on habitats that are sensitive to other pollutants; SAC habitats are also sensitive to air pollution, as follows:

- Atlantic upper-mid & mid-low salt marshes. SAC qualifying feature and supporting habitat for SPA/Ramsar species: grey plover, brent goose, common ringed plover, hen harrier, black-tailed godwit – critical loads for NH3, NOx. Nitrogen deposition potentially has a positive impact for bird species by increasing food supply but a negative impact on the SAC habitat.
- Calcareous grassland. Supporting habitat for SPA/Ramsar species: common ringed plover, little tern – critical load for acid deposition.
- Coastal dune grasslands. Supporting habitat for SPA/Ramsar species: common ringed plover, little tern – critical loads for NH3, NOx. Nitrogen deposition potentially has a positive impact for bird species by increasing food supply but could have a negative impact by causing over-vegetation of tern breeding areas.
- Dwarf shrub heath. Supporting habitat for SPA/Ramsar species – hen harrier – critical load for acid deposition.

- Northern wet heath. Supporting habitat for SPA/Ramsar species: hen harrier- critical loads for NH3, NOx.
- Rich fens. Supporting habitat for SPA/Ramsar species: hen harrier - critical loads for NH3, NOx.
- Shifting coastal dunes. Supporting habitat for SPA/Ramsar species: little tern, common ringed plover – critical loads for NH3, NOx.
- Standing open water and canals. Supporting habitat for SPA/Ramsar species: common pochard - critical loads for NH3, NOx. Habitat sensitivity to nitogen deposition depends whether it is nitrogen or phosphorus limited.
- Estuaries. SAC qualifying feature – critical loads for nitrogen deposition, NH3, NOx.
- Mediterranean and thermo-Atlantic halophilous scrubs. SAC qualifying feature – critical loads for nitrogen deposition, NH3, NOx.
- Rivers and streams. Supporting habitat for SAC fish – sensitive to acid deposition (no critical load).

5.25 Blackwater Ramsar is also designated for its saltmarsh plant communities, which have critical loads for acid deposition, NH3 and NOx.

5.26 The priority habitats data on Magic indicate that the following habitat types are present within 200m of the B1026: saltmarsh, mudflat, lowland fens, and coastal and floodplain grazing marsh. Increased air pollution on this road could therefore have an adverse effect on qualifying bird species relying on Atlantic upper-mid & mid-low salt marshes, and rich fens; as well as on the Ramsar and SAC saltmarsh habitats.

5.27 The Site Improvement Plan for Abberton Reservoir SPA/Ramsar identifies a risk from air pollution as nitrogen deposition levels exceeded the site- relevant critical load, at the time the Site Improvement Plan was written (2014). However, it acknowledges that 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. The Supplementary Advice for Conservation Objectives for the SPA also sets a target maintain or, where

necessary, restore air pollutant levels at or below the qualifying features' relevant critical loads, in order to maintain supporting habitats on which the qualifying bird species rely. Information on critical loads on the Air Pollution Information System (APIS) indicates that the following supporting habitats present at the SPA/Ramsar are sensitive to air pollution:

- Standing open water and canals: northern shoveler, Eurasian teal, Eurasian wigeon, gadwall, common pochard, tufted duck, common goldeneye, mute swan, Eurasian coot, great cormorant, great crested grebe - critical loads for NH3, NOx. Habitat sensitivity to nitrogen deposition depends whether it is nitrogen or phosphorus limited.

5.28 This habitat is present within 200m of the B1026. Increased air pollution on this road could therefore have an adverse effect on qualifying bird species relying on open water habitat.

5.29 All other Habitats Sites are located further than 200m from the strategic road network for the district and therefore are screened out of the assessment (as have functionally linked habitats, see paragraph 5.14).

5.30 All of the policies listed in paragraph 5.2 and all of the Local Plan site allocations could result in the type of development that could increase traffic on roads. In combination effects from vehicle emissions may occur due to development associated with other plans or projects, including site allocations from the previous Braintree Local Plan that have not yet been permitted/built (but have previously been subject to HRA).

5.31 Traffic data is required to model the changes in traffic flow that will occur due to the Local Plan (alone and in combination with other plans and projects). It is therefore not yet possible to conclude whether there will be likely significant effects on air pollution due to vehicle emissions.

There is the potential for likely significant effects due to air pollution from vehicle emissions at Blackwater Estuary Ramsar (and SPA, indirectly), Essex Estuaries SAC, and Abberton Reservoir SPA/Ramsar (indirectly).

This topic is screened in for further assessment. This impact would be due to the Local Plan in combination with other plans/projects.

Industrial emissions

5.32 Industrial emissions may arise from processes such as energy from waste, which can produce air pollutants that include acid gases, particulates, dioxins and heavy metals.

5.33 The area over which industrial emissions can have an adverse effect depends on the nature of the emissions and factors such as stack height and topography of the surrounding area.

5.34 Environment Agency guidance on environmental permitting **[See reference** 34**]** uses a distance of 10km to screen the potential for effects on Habitats Sites from industrial emissions. Habitats Sites within 10km of the Braintree boundary that are sensitive to air pollution are:

- Essex Estuaries SAC – c.4.0km east/southeast.
- Abberton Reservoir SPA & Ramsar site – c.5.5 km southeast.
- Blackwater Estuary (Mid-Essex Coast Phase 4) SPA & Ramsar site – c.4.1km southeast.

5.35 The sensitivity of Blackwater Estuary (Mid-Essex Coast Phase 4) SPA/Ramsar and Abberton Reservoir SPA/Ramsar is set out in paragraphs 5.23 & 5.27.

5.36 The Site Improvement Plan for Essex Estuaries SAC, like that of Blackwater Estuary SPA/Ramsar, identifies the risk to breeding tern habitats from nitrogen deposition. The Supplementary Advice for Conservation Objectives sets a target maintain air pollutant levels at or below the qualifying features' relevant critical loads. APIS provides the following additional information:

- Atlantic salt meadow (qualifying feature): critical loads for nitrogen deposition, NH3, NOx, SO2.
- Coastal shingle vegetation outside the reach of waves (qualifying feature): critical loads for nitrogen deposition, NH3, NOx, SO2.
- Estuaries (qualifying feature): critical loads for nitrogen deposition, NH3, NOx, SO2.
- Mediterranean saltmarsh scrub (qualifying feature): critical loads for nitrogen deposition, NH3, NOx, SO2.
- Shifting dunes with marram (qualifying feature): critical loads for nitrogen deposition, NH3, NOx, SO2.
- Rivers and streams (supporting habitat): allis shad, twaite shad – sensitivity to nitrogen depends whether habitat is nitrogen or phosphorus limited. Identified as sensitive to acid deposition, but no critical load.

5.37 All three of the Habitats Sites within 10km of the plan area are therefore sensitive to air pollution that could arise due to industrial emissions. Functionally linked habitats have been screened out; see paragraph 5.14.

5.38 Policies LPR 3 and LPR 5 (and their associated site allocations) permit industrial development and could result in industrial emissions.

There is the potential for likely significant effects due to air pollution from industrial emissions at Abberton Reservoir SPA/Ramsar (indirectly), Blackwater Estuary Ramsar (and SPA, indirectly), or Essex Estuaries SAC. This topic is screened in for further assessment. This impact would be due to the Local Plan in combination with other plans/projects.

Recreation pressure

5.39 Recreational activities and human presence can result in significant effects on Habitats 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.

5.40 Habitats 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.

5.41 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 Habitats Site, either alone or in-combination, the potential for likely significant effects will require assessment.

5.42 Where Habitats Sites are sensitive to recreation pressure, they 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 are specific to each Habitats Site; although where a ZOI has not yet been established through visitor survey, it may be appropriate to use a precautionary non-specific ZOI. However, patterns of visitor activity and travel, and the resulting levels of disturbance to qualifying features, are influenced by a number of complex and interacting factors and so it is not always appropriate to apply a generic or non-specific ZOI to a Habitats Site. Particularly in relation to coastal Habitats Sites, which have the potential to draw a large number of visitors from areas much further afield.

5.43 To mitigate the effect of recreation pressure at coastal sites in Essex, local authorities including Braintree District Council have partnered to produce the Essex Coast Recreational disturbance Avoidance and Mitigation Strategy (RAMS), which is delivered as part of the Bird Aware Essex Coast initiative. ZOIs, based on visitor surveys undertaken in 2010-2013 and the winter of 2017/18, have been established for all Habitats Sites along the Essex coast and agreed with Natural England. Recreation pressure can sometimes impact upon functionally linked habitats, and the Essex Coast RAMS states that "functionally linked land also needs to be protected from disturbance e.g. key areas of farmland and grassland for Brent geese. This will need to be mapped and has been included as a project in the mitigation package set out in [the] strategy". This does not affect the ZOIs within which the Essex Coast RAMS applies there are no additional functionally linked habitats at which there could be significant recreation impacts.

5.44 The following ZOIs apply to the coastal / estuarine Habitats Sites within 20km of Braintree:

- Blackwater Estuary (Mid Essex Coast Phase 4) SPA and Ramsar: 22km, which overlaps with the south of the district, from Braintree and Coggeshall southwards.
- Colne Estuary (Mid Essex Coast Phase 2) SPA and Ramsar: 9.7km, which does not overlap with Braintree district.
- Crouch and Roach Estuaries (Mid Essex Coast Phase 3) Ramsar and SPA: 4.5km, which does not overlap with Braintree district.
- Dengie (Mid Essex Coast Phase 1) SPA and Ramsar: 20.8km, which overlaps with Kelvedon and parts of Witham within Braintree district.
- Stour and Orwell Estuaries SPA and Ramsar: 13km, which does not overlap with Braintree district.
- Essex Estuaries SAC – as per the SPA/Ramsar sites in each part of the SAC, i.e. the SAC at Blackwater Estuary and Dengie has ZOIs that overlap parts of the district.

5.45 Abberton Reservoir SPA and Ramsar site was not included within the Essex RAMS. A ZOI of 13km has previously been applied in other HRAs **[See reference** 35**]**, based on visitor survey data collected by Colchester Borough Council in 2013, which is understood to be the most up to date visitor survey data for this site at the time of preparing this document. A 13km ZOI overlaps with Coggeshall and Kelvedon, and parts of Witham and Silver End within the district. The site is well managed visitor access and is unlikely to experience adverse effects from recreation pressure; however, it has been screened in in accordance with the precautionary principle of HRA and recent case law (see paragraph 3.8) which prevents reliance on existing management regimes (i.e. avoidance and mitigation measures) at the screening stage.

5.46 Work undertaken by Footprint Ecology **[See reference** 36**]** has established the following ZOIs for the remainder of the Habitats Sites relevant to this HRA:

- Breckland SPA: 26.3km, which overlaps with the northern edge of the district; and
- Devil's Dyke: 5.5km, which does not overlap with Braintree district.

5.47 Residential site allocations within these ZOIs are:

- Within 13km of Abberton Reservoir SPA/Ramsar (e.g. Coggeshall, Kelvedon, Witham east): COGG2084, COGG2085, KELV2208, KELV2209, KELV2212, KELV2214, KELV2215, KELV2217, KELV2221, RIVE2249, WITN2252, WITN2312, WITS2515.
- Within 26.3km of Breckland SPA: None
- Within 22km of Blackwater Estuary (Mid Essex Coast Phase 2) SPA/Ramsar and underlying Essex Estuaries SAC (e.g. Coggeshall, Kelvedon, Witham, Hatfield Peverel, Bradwell, Cressing, Black Notley, Halstead, Braintree): BCBG2010, BCBG2500, BLAN2019, BLAN2027, BOCN2032, BOCN2033, BOCN2042, BURE2070, COGG2084, COGG2085, CRES2101CRES2102, GGHR2141, GGHR2143, GGHR2146, GNBN2154, HASA2179, HASA2180, HATF2185, HATF2192, HATF2193, HATF2194, HATF2318, HATR2203, KELV2208, KELV2209, KELV2212, KELV2214, KELV2215, KELV2217, KELV2221, PANF2508, RIVE2249, WITC2316, WITN2252, WITN2312, WITS2515.

- Within 20.8km of Dengie (Mid Essex Coast Phase 1) SPA/Ramsar and underlying Essex Estuaries SAC (e.g. Coggeshall, Kelvedon, Witham, Hatfield Peverel): COGG2084, COGG2085, HATF2185, HATF2193, KELV2208, KELV2209, KELV2212, KELV2214, KELV2215, KELV2217, KELV2221, RIVE2249, WITC2316, WITN2252, WITN2312, WITS2515.

5.48 Windfall residential development could also occur within these ZOIs. The in combination effects of recreation pressure may occur due to development associated with other plans or projects, including site allocations from the previous Braintree Local Plan that have not yet been permitted/built (but have previously been subject to HRA).

5.49 The policies that would result in residential development in these areas are:

- Policy LPR 10 Tourist Development within the Countryside;
- Policy LPR 18 Housing Provision and Delivery;
- Policy LPR 19 SGL - Hayeswood, East of Great Notley, South of Braintree;
- Policy LPR 20 SGL - Land East of Broad Road, Braintree;
- Policy LPR 21 SGL - Former Towerlands Park Site;
- Policy LPR 22 SGL - Panfield Lane, North West Braintree;
- Policy LPR 23 SGL - East of Braintree;
- Policy LPR 24 SGL - Land South and North-East of Halstead (Within Greenstead Green and Cole Engaine Parish);
- Policy LPR 25 SGL - Land at South East Feering;
- Policy LPR 26 SGL Kings Dene – North, West and South West of Kelvedon;
- Policy LPR 27 SGL - Wood End Farm, Witham;
- Policy LPR 28 Land North of the A12, Hatfield Peverel;

- Policy LPR 29 Comprehensive Redevelopment Area - B&M Retail Unit, Rayne Road;
- Policy LPR 30 Comprehensive Redevelopment Area - Land East of Halstead High Street;
- Policy LPR 31 Comprehensive Redevelopment Area - Factory Lane West/Kings Road, Halstead;
- Policy LPR 32 Comprehensive Redevelopment Area - Coggeshall Football Club;
- Policy LPR 33 Comprehensive Redevelopment Area - Kings Chase, Witham;
- Policy LPR 34 Comprehensive Redevelopment Area - Cut Throat Lane Carpark, Witham;
- Policy LPR 35 Comprehensive Redevelopment Area - Newlands Precinct, Witham;
- Policy LPR 36 Comprehensive Redevelopment Area - Rickstones Neighbourhood Centre, Witham;
- Policy LPR 37 Land on the East Side of the A131 High Garrett;
- Policy LPR 41 Specialist Housing;
- Policy LPR 42 Specialist Housing – Mount Hill, Halstead; and
- Policy LPR 44 Gypsy and Traveller and Travelling Showpersons' Accommodation.

There is the potential for likely significant effects due to recreation pressure at Abberton Reservoir SPA/Ramsar, Breckland SPA, Blackwater Estuary SPA/Ramsar, Dengie SPA/Ramsar, and Essex Estuaries SAC. This topic is screened in for further assessment. This impact would be due to the Local Plan in combination with other plans/projects.

Water quantity and quality

Increased demand for water (abstraction)

5.50 An increase in demand for water abstraction resulting from the growth proposed in the Local Plan could result in changes in hydrology at Habitats Sites. Depending on the qualifying features and particular vulnerabilities of the Habitats 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.

5.51 Mains water is supplied to Braintree by Affinity Water, Anglian Water and Essex and Suffolk Water. The River Stour, River Colne and River Brain at confluence with Blackwater, along with the Hanningfield and Abberton reservoirs and groundwater sources provide the water supply for the water companies. The qualifying bird species of Abberton Reservoir SPA/Ramsar could therefore be affected indirectly by abstraction for water supply, via impacts on supporting habitats. Essex Estuaries SAC and its associated SPA/Ramsar sites are hydrologically connected to the rivers that supply water; but they are tidal and more strongly influenced by marine conditions than the volume of water in the connecting rivers. However, the supplementary advice for conservation objectives for Essex Estuaries SAC set a ‘maintain’ objective for the qualifying habitat ‘Estuaries’ freshwater water sources, to ensure that the salinity of the estuaries is maintained. Impacts on the qualifying habitats at Essex Estuaries SAC, and aquatic / intertidal habitats or plant species at Blackwater, Colne Estuary, Crouch & Roach, Dengie, and Stour & Orwell Estuaries Ramsar sites have been screened in as a precaution. Estuary habitats support the SPA/Ramsar bird species and SAC/Ramsar invertebrates, which could be affected indirectly by changes in salinity in the SAC; however this is not anticipated to be significant due to the stronger influence of tidal inundation. There are no likely significant effects on functionally linked habitats.

5.52 Essex and Suffolk Water manages Abberton Reservoir and supplies water to only part of the district, around Witham, Rivenhall and Silver End. Site

allocations in this area would therefore increase demand for water that could affect Abberton Reservoir SPA/Ramsar: KELV2208, KELV2214, RIVE2249, WITN2252, WITN2313. This residential and employment development is associated with the following policies:

- Policy LPR 3 Strategic Employment
- Policy LPR 4 Location of Employment Land
- Policy LPR 5 Employment Policy Areas
- Policy LPR 18 Housing Provision and Delivery
- Policy LPR 26 SGL Kings Dene – North, West and South West of Kelvedon

There is the potential for likely significant effects at Abberton Reservoir SPA/Ramsar (indirectly) or Essex Estuaries SAC, Blackwater Estuary Ramsar, Colne Estuary Ramsar, Crouch & Roach Ramsar, Dengie Ramsar and Stour & Orwell Estuaries Ramsar, due to increased demand for water. This topic is screened in for further assessment. This impact would be due to the Local Plan in combination with other plans/projects.

Increased need for wastewater treatment

5.53 The discharge of wastewater can affect habitats by altering water quality, for example through nutrient enrichment. Nutrient pollution can cause eutrophication, leading to algal blooms which disrupt normal ecosystem function and cause major changes in the aquatic community, for example by reducing levels of oxygen within the water.

5.54 Wastewater from Braintree is treated by Anglian Water at 41 wastewater recycling centres **[See reference** 37**]** (WRCs), within and outside the district, which discharge into various watercourses. The rivers drain towards the coast

via Maldon or Colchester; therefore, there is a hydrological connection between the following main WRCs serving the district and Habitats Sites:

- Blackwater Estuary (Mid-Essex Coast Phase 4) SPA & Ramsar site –
  - Coggeshall, Bocking, Rivenhall End, Wethersfield WRCs; via the River Blackwater and tributaries.
  - Witham, White Notley, Braintree, Rayne WRCs; via the River Brain.
  - Willows Green WRC (outside the district but may serve Great Notley); via the River Ter.
- Colne Estuary (Mid-Essex Coast Phase 2) SPA & Ramsar site – Earls Colne, Halstead, Sible Hedingham, Haverhill WRCs; via the River Colne.
- Stour and Orwell Estuaries SPA & Ramsar site – Bures; via the River Stour.
- Essex Estuaries SAC – all of the above.

5.55 The SAC and Ramsar qualifying habitats have the potential to be affected directly by increased nutrient input to these rivers. The SPA and Ramsar bird species and Ramsar invertebrates have the potential to be affected indirectly via habitats they rely on. There are no likely significant effects on functionally linked habitats.

5.56 The supplementary advice for conservation objectives (SACO) for Essex Estuaries SAC states that the risk of eutrophication across the SAC is low, but that high concentrations of nutrients could cause phytoplankton and macroalgae blooms, reducing oxygen availability for other species. The SACO sets an objective to ‘maintain water quality at mean winter dissolved inorganic nitrogen levels’ for the SAC’s intertidal and subtidal habitats.

5.57 In relation to Atlantic salt meadows (a type of saltmarsh), the SACO states that “For many SAC features that are dependent on wetland habitats supported by surface and / or groundwater, maintaining the quality and quantity of water supply will be critical, especially at certain times of year. Poor water quality and inadequate quantities of water can adversely affect the structure and function of

this habitat type. Typically, meeting the surface water and groundwater environmental standards set out by the Water Framework Directive (WFD 2000/60/EC) will also be sufficient to support the achievement of SAC Conservation Objectives"; however, the 'maintain' target "is subject to change because nutrient levels within the Blackwater Estuary are currently being investigated by the Environment Agency". Saltmarsh habitats or plant species are also a qualifying feature at: Blackwater Estuary, Colne Estuary, Crouch & Roach, Dengie Ramsar, and Stour & Orwell Estuaries Ramsar sites, to which the SAC objectives for this habitat will apply. These sites have been screened in as a precaution. Indirect effects (e.g. on SPA bird species or Ramsar invertebrates, via SAC/Ramsar habitats or plant species) are not expected to be significant as the risk of eutrophication is low and increased nutrients would be unlikely to alter habitats to the extent that, for example, food sources for birds would be limited.

5.58 It is primarily residential/overnight development (all site allocations with homes, plus windfall development) that could contribute to a significant increase in the need for wastewater treatment; and therefore increased nutrients in the estuaries.

5.59 The policies associated with this development are:

- Policy LPR 10 Tourist Development within the Countryside;
- Policy LPR 18 Housing Provision and Delivery;
- Policy LPR 19 SGL - Hayeswood, East of Great Notley, South of Braintree;
- Policy LPR 20 SGL - Land East of Broad Road, Braintree;
- Policy LPR 21 SGL - Former Towerlands Park Site;
- Policy LPR 22 SGL - Panfield Lane, North West Braintree;
- Policy LPR 23 SGL - East of Braintree;
- Policy LPR 24 SGL - Land South and North-East of Halstead (Within Greenstead Green and Cole Engaine Parish);
- Policy LPR 25 SGL - Land at South East Feering;

- Policy LPR 26 SGL Kings Dene – North, West and South West of Kelvedon;
- Policy LPR 27 SGL - Wood End Farm, Witham;
- Policy LPR 28 Land North of the A12, Hatfield Peverel;
- Policy LPR 29 Comprehensive Redevelopment Area - B&M Retail Unit, Rayne Road;
- Policy LPR 30 Comprehensive Redevelopment Area - Land East of Halstead High Street;
- Policy LPR 31 Comprehensive Redevelopment Area - Factory Lane West/Kings Road, Halstead;
- Policy LPR 32 Comprehensive Redevelopment Area - Coggeshall Football Club;
- Policy LPR 33 Comprehensive Redevelopment Area - Kings Chase, Witham;
- Policy LPR 34 Comprehensive Redevelopment Area - Cut Throat Lane Carpark, Witham;
- Policy LPR 35 Comprehensive Redevelopment Area - Newlands Precinct, Witham;
- Policy LPR 36 Comprehensive Redevelopment Area - Rickstones Neighbourhood Centre, Witham;
- Policy LPR 37 Land on the East Side of the A131 High Garrett;
- Policy LPR 41 Specialist Housing;
- Policy LPR 42 Specialist Housing – Mount Hill, Halstead; and
- Policy LPR 44 Gypsy and Traveller and Travelling Showpersons' Accommodation.

There is the potential for likely significant effects on Essex Estuaries SAC, Blackwater Estuary Ramsar, Colne Estuary Ramsar, Crouch & Roach

Ramsar, Dengie Ramsar, and Stour & Orwell Estuaries Ramsar as a result of changes in water quality associated with an increased need for wastewater treatment. This topic is screened in for further assessment. This impact would be due to the Local Plan in combination with other plans/projects.

Direct pollution (run-off)

5.60 Direct pollution may occur if development is very close to or upstream of a Habitats Site. The Habitats Sites screened into this HRA are at least 4km from the district boundary, however there is some hydrological connectivity to the coastal Habitats Sites, via the Blackwater, Brain, Colne, Stour and Ter rivers (see paragraph 5.54). There are no likely significant effects on functionally linked habitats.

5.61 Development adjacent to or hydrologically connected to those rivers therefore has the potential to result in direct pollution, which could affect the following:

- Blackwater Estuary (Mid-Essex Coast Phase 4) SPA & Ramsar site;
- Colne Estuary (Mid-Essex Coast Phase 2) SPA & Ramsar site;
- Stour and Orwell Estuaries SPA & Ramsar site; and
- Essex Estuaries SAC.

5.62 The following rivers have site allocations adjacent to them, that could result in direct pollution:

- River Stour: no adjacent site allocations.
- River Colne: GGHR2416, GGHR2141, GRYE2176.
- River Blackwater: KELV2221, KELV2214, KELV2208, COGG2085, BOCN2042.

- River Brain: no adjacent site allocations.
- River Ter: no adjacent site allocations.

5.63 Pollution into these rivers could therefore affect habitats or aquatic / intertidal plant species or invertebrates at Essex Estuaries SAC, Blackwater Estuary Ramsar site, and Colne Estuary Ramsar site. As with nutrients associated with wastewater treatment, it is not considered likely that indirect effects (e.g. on SPA bird species, via SAC/Ramsar habitats or plant species) would be significant.

5.64 In addition, the following policies permit development outside of allocated sites, which could in theory be adjacent to a river (Stour, Colne, Blackwater, Brain, Ter Rivers):

- Policy LPR 18 Housing Provision and Delivery;
- Policy LPR 10 Tourist Development within the Countryside;
- Policy LPR 61 Equestrian Facilities;
- Policy LPR 70 Educational Establishments;
- Policy LPR 71 Community Services and Facilities; and
- Policy LPR 83 Renewable Energy Schemes.

5.65 Windfall development could therefore result in (small scale) direct pollution that could affect the qualifying plant species of Crouch & Roach Estuaries (Mid Essex Coast Phase 3) Ramsar, Dengie (Mid Essex Coast Phase 1) Ramsar, or Stour & Orwell Estuaries Ramsar; these are screened in as a precaution. Indirect effects on the SPA/Ramsar bird species are not likely to be significant.

There is the potential for likely significant effects on water quality at Essex Estuaries SAC, Blackwater Estuary Ramsar site, Colne Estuary Ramsar, Crouch & Roach Estuaries Ramsar, Dengie Ramsar, or Stour & Orwell Estuaries Ramsar site due to increased need for wastewater treatment.

This topic is screened in for further assessment. This impact could be due to the Local Plan alone or in combination with other plans or projects.

Summary of HRA Screening

5.66 Table 4.5 below summarises the Screening conclusions reached in this HRA for each Habitats Site and impact pathway.

5.67 The conclusions are categorised as either:

- No impact pathway – screened out;
- No LSE (likely significant effect) – i.e. there is an impact pathway but the scale of development is not considered likely to have a significant effect and the impact is screened out; or
- LSE – there are likely significant effects; the impact is screened in and will require Appropriate Assessment.

5.68 The following have been screened out for all Habitats Sites as there is no impact pathway and is therefore excluded from the table: physical damage or loss of habitat (direct impacts), non-physical disturbance (direct impact), and air pollution (dust). Where impacts affect the same sites, for more than one impact pathway (e.g. air pollution from vehicles and industrial emissions), they have been grouped.

5.69 The policies listed in paragraph 5.2 and all of the site allocations in the Local Plan have been screened in.

Table 5.1: Summary of impact pathways screened in

Habitats Site	Loss or disturbance of functionally linked habitats	Air pollution (vehicles and industrial)	Recreation pressure	Water (abstraction)	Water (wastewater and direct pollution)
Abberton Reservoir SPA and Ramsar site	LSE (SPA, only)	LSE (indirectly)	LSE	LSE (indirectly)	No impact pathway
Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar site	LSE (SPA, only)	LSE at Ramsar (SPA indirectly)	LSE	LSE at Ramsar (no LSE at SPA)	LSE at Ramsar (no LSE at SPA)
Breckland SPA	No impact pathway	No impact pathway	LSE	No impact pathway	No impact pathway
Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar site	LSE (SPA, only)	No impact pathway	No LSE	LSE at Ramsar (no LSE at SPA)	LSE at Ramsar (no LSE at SPA)
Crouch & Roach Estuaries (Mid-Essex Coast Phase 3) SPA and Ramsar site	No impact pathway	No impact pathway	No LSE	LSE at Ramsar (no LSE at SPA)	LSE at Ramsar (no LSE at SPA)
Dengie (Mid-Essex Coast Phase 1) SPA and Ramsar site	No impact pathway	No impact pathway	LSE	LSE at Ramsar (no LSE at SPA)	LSE at Ramsar (no LSE at SPA)
Devil's Dyke SAC	No impact pathway	No impact pathway	No LSE	No impact pathway	No impact pathway
Essex Estuaries SAC	No impact pathway	LSE	LSE	LSE	LSE

Habitats Site	Loss or disturbance of functionally linked habitats	Air pollution (vehicles and industrial)	Recreation pressure	Water (abstraction)	Water (wastewater and direct pollution)
Stour and Orwell Estuaries SPA and Ramsar site	LSE (SPA, only)	No impact pathway	No LSE	LSE at Ramsar (no LSE at SPA)	LSE at Ramsar (no LSE at SPA)

Chapter 6

Appropriate Assessment

6.1 The HRA Screening identified likely significant effects relating to: air pollution (vehicles and industrial emissions), recreation pressure, and changes in water quality/quantity (due to abstraction, wastewater treatment, and direct pollution). This chapter considers whether any of the identified impact pathways could result in adverse effects on the integrity of any Habitats Sites, i.e. prevent their conservation objectives from being met.

6.2 The Appropriate Assessment can take into account mitigation and impact avoidance measures, where there is certainty that they can be delivered. The main policies in the Local Plan providing general protection for Habitats Sites are Policies LPR 73 and LPR 73, quoted in full below and referred to as necessary in relation to each impact pathway:

Policy LPR 73 Natural Environment and Green Infrastructure

Development proposals must take available measures to ensure the protection and enhancement of the natural environment, habitats, biodiversity and geodiversity of the District and to be acceptable, also taking climate change and water scarcity into account in their design. This will include protection from pollution. Proposals inside the District which are likely to adversely affect, either individually or cumulatively, International or Nationally designated nature conservation sites within and outside the District will not normally be acceptable.

The Council will expect all development proposals, where appropriate, to contribute towards the delivery of new Green Infrastructure which develops

and enhances a network of multi-functional spaces and natural features throughout the District. This will be proportionate to the scale of the proposed development and the rural or urban context. The Council will support and encourage development which contributes to the District's existing Green Infrastructure and where possible, enhances and protects networks and adds to their functions. It will secure additional provision where deficiencies have been identified. Open space and green infrastructure may in some instances be required to provide alternatives to European sites and that such sites should be designed and managed appropriately to maximise their potential effectiveness in this role. Proposals which undermine these principles will not be acceptable

Policy LPR 74 – Protected Sites

International Designations

Sites designated for their international importance to nature conservation; including Ramsar sites, Special Protection Areas (SPA), Special Areas of Conservation (SAC), should be protected from development likely to have an adverse affect on their integrity whether they are inside or outside the District.

Proposals which are considered to have a likely significant effect on these sites will require an Appropriate Assessment (AA) in line with European and domestic legislation. Developers should provide information sufficient to inform this assessment. Planning permission will only be granted if, in light of the AA, it can be ascertained that the development would not adversely affect the integrity of these sites or, if there are no alternative solutions, imperative reasons of overriding public interest can be demonstrated.

In accordance with the Habitats Regulations, development proposals should follow the avoid-mitigate-compensate hierarchy. Where this cannot

be achieved, development proposals will not be permitted.

Residential developments must contribute to the Essex Coast Recreational Disturbance Avoidance and Mitigation Strategy 2018-2038 (RAMS) where they fall within the Zones of Influence of international designations as defined in the RAMS.

Larger site allocations will be required to provide sufficient greenspace to mitigate alone impacts on Essex Coast Habitat Sites

Nationally Designated sites

Sites designated for their national importance to nature conservation; including Sites of Special Scientific Interest (SSSIs) should also be protected from development which is likely to adversely affect the features for which they are designated. Where necessary, developers should therefore ensure that sufficient assessment of potential impacts to SSSIs is also submitted with any planning application.

Locally Designated sites

Proposals likely to have an adverse effect on a Local Wildlife Site (LWS), Local Nature Reserve (LNR) and Special Roadside Verge will not be permitted unless the benefits of the development clearly outweigh the harm to the nature conservation value of the site. If such benefits exist, the developer will be required to demonstrate that impacts will be avoided, and impacts that cannot be avoided will be mitigated on-site.

Protected Species, Priority Species and Priority Habitat

Proposals that result in a net gain in priority habitat will be supported in principle, subject to other policies in this plan. Where priority habitats are likely to be adversely impacted by the proposal, the developer must demonstrate that adverse impacts will be avoided, and impacts that cannot be avoided are mitigated on-site. Where residual impacts remain, off-site

compensation will be required so that there is no net loss in quantity and quality of priority habitat in Braintree District.

Where there is a confirmed presence or reasonable likelihood of protected species or priority species being present on or immediately adjacent to a development site, the developer will be required to undertake an ecological survey and will be required to demonstrate that an adequate mitigation plan is in place to ensure no harm to protected species and no net loss of priority species.

Proposals resulting in the loss, deterioration or fragmentation of irreplaceable habitats such as ancient woodland or veteran trees will not normally be acceptable unless the need for, and benefits of the development in that location clearly outweigh the loss.

All development proposals
In all cases a precautionary approach will be taken where insufficient information is provided about avoidance, management, mitigation and compensation measures. Management, mitigation and compensation measures will be secured through planning conditions/obligations where necessary.

Loss of habitat or disturbance at functionally linked habitats

6.3 Habitats used by lapwing from Stour & Orwell Estuaries SPA; or golden plover from Abberton Reservoir SPA, Blackwater Estuary SPA or Colne Estuary SPA may be present within the plan area.

6.4 The general protection provided by Policies LPR 73 and LPR 74 (see paragraph 6.2) are sufficient to ensure that an individual site with the potential for a significant impacts on functionally linked habitat would be identified and required to avoid or mitigate the loss or disturbance of functionally linked habitat. However, the loss or disturbance of functionally linked habitat may also occur as piecemeal loss of habitat from multiple sites. It is therefore not possible to rule out adverse effects on the integrity of these sites, due to in combination effects.

6.5 It is recommended that a desk study is undertaken, in the first instance, to identify the potential of greenfield site allocations within 15km of the Habitats Sites with lapwing or golden plover to be suitable for use by these species. The appraisal of suitability should be based on information obtainable from aerial photography and public datasets (e.g. priority habitats), to determine likely land use and the presence of features likely to deter lapwing or golden plover (e.g. proximity to human disturbance, or small field size). If some site allocations are considered suitable for use by golden plover or lapwing, then the next steps should be agreed with Natural England and may include additional mitigation in policy (e.g. a requirement for ecological survey).

There is insufficient information at present to rule out adverse effects on the integrity of Abberton Reservoir SPA, Blackwater Estuary SPA, Colne Estuary SPA or Stour & Orwell Estuaries SPA, due to loss or disturbance of functionally linked habitats.

Vehicle emissions

6.6 The HRA Screening identified potential significant effects on Blackwater Estuary (Mid Essex Coast Phase 4) SPA & Ramsar, Essex Estuaries SAC, and Abberton Reservoir SPA/Ramsar, where the B1026 passes within 200m of them (at Maldon and Layer-de-la-Haye). However, there is currently insufficient data to quantify changes in traffic flows that could arise from development

associated with the Local Plan; or to confirm the affected road network, i.e. confirm which roads would exceed screening criteria.

6.7 Traffic data will need to show current traffic flows (AADT for all traffic and for HDVs) and modelled flows at the end of the plan period (with and without Local Plan development) and identify the affected road network, in line with Design Manual for Roads and Bridges guidance LA105 **[See reference** 38**]**. It will then need to assess the changes in traffic flow where roads pass within 200m of a Habitats Sites (possibly the B1026, as above).

6.8 If this data shows increases of more than 1,000 AADT or 200 HDV from the Local Plan alone or in combination with other plans and projects, then air quality assessment will be required in line with Institute of Air Quality Management **[See reference** 39**]** and Natural England **[See reference** 40**]** guidance. Ecological assessment (desk study and/or site survey) may also be needed, if impacts cannot be ruled out on the basis of traffic or air quality assessment findings. If adverse effects on the integrity of a site are identified, mitigation would need to be agreed, tested and secured prior to the adoption of the Local Plan.

6.9 There are some existing safeguards within Local Plan policies, that reduce the risk of adverse effects associated with vehicle emissions; and these would be taken into account if mitigation is required:

- Policy LPR 52 Sustainable Transport – requires new development to provide facilities for sustainable transport. This could reduce air pollution impacts associated with travel.
- Policy LPR 53 Parking Provision – requires new development to provide parking for bicycles. This could reduce air pollution impacts associated with travel.
- Policies LPR 19, 22, 23, 24, 25, 26, 27, 28, 29, 32, 33, 34 are strategic growth locations and comprehensive redevelopment areas that have a requirement for new/enhanced sustainable transport provision including new walking and cycling routes.

6.10 Policies LPR 73 and LPR 74 (see paragraph 6.2) also provide general protection for Habitats Sites; and would ensure that development that could have an adverse effect on a Habitats Sites, alone or in combination, would not be permitted. However, as air pollution impacts tend to arise due to multiple developments in combination, it can be difficult to provide mitigation for in-combination effects, on a site-by-site basis; although it may be possible in some cases, for example if a large development is contributing a significant portion of the increase in traffic on a road. The need for mitigation will be considered further following further assessment of traffic flows and, if necessary, modelled air quality.

There is insufficient information at present to rule out adverse effects on the integrity of Blackwater Estuary (Mid Essex Coast Phase 4) SPA & Ramsar, Essex Estuaries SAC, and Abberton Reservoir SPA/Ramsar due to air pollution from vehicles.

Industrial emissions

6.11 The HRA Screening identified possible impacts from industrial emissions associated with industrial development arising from LPR 3 and LPR 5 (and their associated site allocations). This has the potential to affect Abberton Reservoir SPA/Ramsar (indirectly), Blackwater Estuary (Mid-Essex Coast Phase 4) Ramsar (and SPA, indirectly), or Essex Estuaries SAC.

6.12 The type and level of emissions will vary depending on the scale and nature of the facility. However, all emissions will be subject to control under the Industrial Emissions Directive (Directive 2010/75/EU), transposed into law in England by The Environmental Permitting Regulations (England and Wales) 2010 (as amended) and will require either a Part A(1) or A(2) environmental permit.

6.13 Policies LPR 73 and LPR 74 (see paragraph 6.2) also provide general protection for Habitats Sites.

6.14 Industrial emissions are subject to environmental permitting from the Environment Agency **[See reference** 41**]**. Permit applicants are required to undertake screening to identify Habitats Sites within 10km, calculate the predicted environmental concentration of each substance released to air and compare these with environmental standards, then take action to reduce emissions levels, where required **[See reference** 42**]**. This is considered a sufficient safeguard that likely significant effects on Habitats Sites can be avoided.

There will be no adverse effects on the integrity of Abberton Reservoir SPA/Ramsar, Blackwater Estuary (Mid-Essex Coast Phase 4), SPA/Ramsar or Essex Estuaries SAC, as a result of industrial emissions arising from the Local Plan, either alone or in combination with other plans or projects.

Recreation pressure

6.15 Residential development has the potential to have likely significant effects due to recreation pressure if it occurs within one of the following ZOIs: 13km of Abberton Reservoir SPA/Ramsar, 26.3km of Breckland SPA; 22km of Blackwater Estuary (Mid Essex Coast Phase 2) SPA/Ramsar; 20.8km of Dengie (Mid Essex Coast Phase 1) SPA/Ramsar (and the ZOI of Essex Estuaries SAC, which corresponds with the Blackwater and Dengie ZOIs).

Blackwater Estuary and Dengie

6.16 There are c.12,388 homes at 62 site allocations within the ZOI of Blackwater Estuary; and c.5,504 homes at 28 site allocations within the ZOI of Dengie.

6.17 The Essex Coast RAMS (Bird Aware Essex Coast) provides mitigation for the in-combination effects of recreation pressure, arising from multiple plans or projects. However, Braintree Council's Essex Coast RAMS SPD, which implements the mitigation within the district, states that:

6.18 Some housing schemes, particularly those located close to a Habitats site boundary or large-scale developments, may need to provide mitigation measures to avoid likely significant effects from the development alone, in addition to the mitigation required in-combination and secured for delivery through the RAMS. This would need to be assessed and, where appropriate, mitigated through a separate project level Habitats Regulations Assessment (HRA) (including AA where necessary). The local planning authority, in consultation with Natural England, would advise on applicable cases."

6.19 Policy LPR 73 (see paragraph 6.2) ensures that proposals that are likely to adversely affect internationally/nationally designated nature conservation sites will not be permitted. It also states that "open space and green infrastructure may in some instances be required to provide alternatives to European sites and that such sites should be designed and managed appropriately to maximise their potential effectiveness in this role." Similarly, Policy LPR 74 requires residential development to contribute to the Essex Coast RAMS and states that "Larger site allocations will be required to provide sufficient greenspace to mitigate alone impacts on Essex Coast Habitats Sites." The policies do not specify the circumstances in which this would be required, for example what would be a larger development or whether it only applies to development within the ZOI of an Essex Coast Habitats Site. However, the following strategic growth location and comprehensive redevelopment area policies specify a requirement for new open space: Policies LPR 19, LPR 20, LPR 21, LPR 22, LPR 24, LPR 25, LPR 26, LPR 27, LPR 28, LPR 29, LPR 32, and LPR 34.

6.20 Residential development that is considered to have potentially significant impacts (i.e. requires screening) in Environmental Impact Assessment terms **[See reference** 43**]** is development with 150 homes or more, or on a site of 5ha or greater. If these criteria are applied to site allocations in the Essex Coast ZOIs, then the following are 'larger developments' and may require additional recreation mitigation:

- BLAN2027 - Land at Friars Farm, Black Notley: 480 homes, 23.7ha.
- BOCN2032 - Land on the East Side of the A131 High Garrett: 125 homes, 7.5ha.
- COGG2084 - Land south of Colchester Road, Coggeshall: 200 homes, 12.8ha.
- COGG2085 - Land to the south of West Street, Coggeshall: 80 homes, 20.6ha.
- CRES2101 - Last East of Braintree: 1,350 homes, 164.6ha.
- CRES2102 - Land West Of Mill Lane, Cressing: 78 homes, 9.1ha.
- GGHR2141 - Land to South East of Halstead: 1,100 homes, 86.7ha.
- GGHR2146 - Land to South East of Halstead: 55 homes, 5.5ha.
- HASA2179 - Land North and East of Halstead: 1,610 homes, 128.9ha.
- HATF2185 - Land off Maldon Road, Hatfield Peverel: 150 homes, 6.0ha.
- HAT2318 - Site at The Vineyards: 190 homes, 6.6ha.
- KELV2208 - Kings Dene at North Kelvedon: 1,150 homes, 573.1ha.
- KELV2209 - Kings Dene at North Kelvedon: 460 homes, 40.3ha.
- KELV2217 - Land on the north side of Church Hill, Kelvedon: 200 homes, 8.0ha.
- PANF2508 - Land North-West of Panfield Lane, Braintree: 100 homes, 6.9ha.
- WITC2316 - Land at Wood End Farm, Witham: 143 homes, 5.7ha.

6.21 Although the Local Plan policies would be likely to result in sufficient mitigation being provided to avoid adverse effects on the integrity of Blackwater Estuary (Mid Essex Coast Phase 2) SPA/Ramsar; Dengie (Mid Essex Coast Phase 1) SPA/Ramsar, or Essex Estuaries SAC where it underlies these SPA/Ramsar sites, it is recommended that the policy wording is strengthened. Policy LPR 74 and/or LPR 73 should provide additional guidance on the circumstances in which additional open space provision will be required, to mitigate recreation pressure at the Essex Coast Habitats Sites. The requirement could also be cross-referenced in the relevant site allocation policies.

There will be no adverse effects on the integrity of Blackwater Estuary (Mid Essex Coast Phase 2) SPA/Ramsar, Dengie (Mid Essex Coast Phase 1) SPA/Ramsar, or Essex Estuaries SAC, as a result of recreation pressure due to the Local Plan, either alone or in combination with other plans or projects.

Amendments to policy wording are recommended for clarity.

Abberton Reservoir

6.22 A total of 2,620 homes at 16 site allocations are proposed within the 13km ZOI of Abberton Reservoir SPA/Ramsar. The reservoir is managed by Essex Wildlife Trust in partnership with Essex & Suffolk Water. 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-site wardening. Natural England has indicated in relation to the Colchester Local Plan HRA, where development would be nearer to the SPA/Ramsar, that they are not concerned about recreation pressure at this site. The existing management of visitors at the site is

considered sufficient to avoid adverse effects on the integrity of the site due to recreation pressure.

There will be no adverse effects on the integrity of Abberton Reservoir SPA/Ramsar, as a result of recreation pressure due to the Local Plan, either alone or in combination with other plans or projects.

Breckland

6.23 There are no site allocations within the 26.3km ZOI of Breckland SPA, although windfall (i.e. small scale) development could occur within the ZOI.

6.24 The most recent mitigation strategy for recreation pressure at Breckland SPA (and SAC) was prepared by Footprint Ecology for West Suffolk Council [see reference 36]. c.7,000 homes are allocated for development in the West Suffolk Local Plan, within the ZOI of Breckland SAC/SPA, therefore mitigation was developed comprising developer contributions to Strategic Access Management and Monitoring (SAMM), i.e. measures to manage the impacts of recreation pressure within the SAC/SPA itself.

6.25 Braintree Local Plan' Policies LPR 73 and LPR 74 (see paragraph 6.2) provide general protection for Habitats Sites, and the following policies provide additional safeguards that would contribute to a reduced risk of recreation pressure:

- Policy LPR 77 Landscape Character and Features – encourages proposals to maximise opportunities for the creation of new green infrastructure and green infrastructure networks.
- Policy LPR 60 Provision for Open Space, Sport and Recreation – requires new development to provide new open space in line with the open spaces SPD.

6.26 Given the very small scale of the development within the ZOI of Breckland SPA, these are considered sufficient to avoid adverse effects on its integrity, due to recreation pressure.

There will be no adverse effects on the integrity of Breckland SPA as a result of recreation pressure due to the Local Plan, either alone or in combination with other plans or projects.

Increased demand for water supply and wastewater treatment

6.27 Abstraction to supply water to new development could result in reduced water levels at Abberton Reservoir SPA/Ramsar or reduced freshwater input to Essex Estuaries SAC, Blackwater Ramsar, Colne Estuary Ramsar, Crouch & Roach Ramsar, Dengie Ramsar, and Stour & Orwell Estuaries Ramsar.

6.28 Wastewater treatment could cause nutrient enrichment in watercourses connected to Essex Estuaries SAC, Blackwater Estuary Ramsar, Colne Estuary Ramsar, Crouch & Roach Ramsar, Dengie Ramsar, and Stour & Orwell Estuaries Ramsar.

6.29 Anglian Water's Water Resource Management Plan 2019 (WRMP) **[See reference** 44**]** and its WRMP 2024 **[See reference** 45**]** (last updated in April 2025) set out the proposed approach to managing water supply over the period 2019-2045 and 2025-2050, respectively. Anglian Water also has a related Drought Plan 2022 **[See reference** 46**]**, which sets out how water supplies will be managed during drought periods, and a Drainage and Wastewater Management Plan (DWMP) 2023 **[See reference** 47**]** which plans for the treatment and recycling of wastewater. The WRMPs (and, as a result, the Drought Plan and DWMP) take into account changes to demand, that include the growth allocated in the Local Plan.

6.30 There are established regulatory mechanisms over the treatment and abstraction of wastewater (overseen by the Environment Agency) that require the water companies to take into account environmental impacts and meet the Habitats Regulations. The HRA of the WRMP 2024 and the Drought Plan 2022 conclude that there is uncertainty as to whether there are adverse effects on the integrity of Habitats Sites, at the time of its writing (2022). The HRA conclusions for the WRMP 2024 will be updated following consultation with nature conservation authorities and confirmation as to whether additional mitigation is required.

6.31 A Water Cycle Study (WCS) has been commissioned for the Local Plan and is currently in draft form **[See reference** 48**]**. The purpose of the WCS is to confirm whether development proposed in the Local Plan can be accommodated in the available water supply and treatment infrastructure. The draft WCS identifies potential issues with water supply and recommends a tighter water efficiency standard in the Local Plan (90 litres/person/day). Most of the need for wastewater treatment is anticipated to be met, although the draft WCS suggests that tighter limits on wastewater permits will be required to do so, along with some additional capacity at two WRCs (Bocking and Coggeshall, which are hydrologically connected to Blackwater Estuary SPA & Ramsar site).

6.32 The Local Plan includes the following, which will help to reduce the impacts of abstraction for water supply and wastewater treatment, on Habitats Sites:

- Policy LPR 88 Infrastructure delivery and impact mitigation policy – requires developments to demonstrate sufficient infrastructure capacity or deliver it via the proposal. Where additional infrastructure capacity is required, mitigation measure must be agreed with the Council and infrastructure provided and could include financial contributions to new/expanded infrastructure or on/off site provision.
- Policy LPR 82 Energy Generation and Efficiency – sets a water efficiency standard of 110 litres/person/day (and BREEAM Very Good), which will reduce demand for water and volumes of wastewater.

- Policy LPR 62 Layout and Design of Development – requires development to incorporate environmental sustainability including water efficiency, which could reduce demand for water and volumes of wastewater.

6.33 Water companies have a duty to ensure that the Habitats Regulations are met, in supplying water. Policy LPR 88 is intended to ensure that development will not exceed the available water supply or treatment capacity; and therefore, that there will not be adverse effects on the integrity of Habitats Sites due to abstraction or wastewater treatment.

6.34 However, as the WCS and the WRMP 2024 and its HRA are being finalised alongside the Local Plan process, and the WCS identifies potential issues with water supply and wastewater treatment, Anglian Water will need to be consulted on the conclusions and recommendations in the WCS and the Local Plan updated to accommodate any recommended changes agreed with Anglian Water (e.g. the water efficiency standard in Policy LPR 82). Until this work is concluded, and taking a precautionary approach, adverse effects due to water supply and wastewater treatment remain uncertain and cannot yet be ruled out.

Adverse effects on the integrity of Abberton Reservoir SPA/Ramsar (indirectly; abstraction only), Essex Estuaries SAC, Blackwater Estuary Ramsar (wastewater only), Colne Estuary Ramsar, Crouch & Roach Ramsar, Dengie Ramsar, or Stour & Orwell Estuaries Ramsar are uncertain and cannot yet be ruled out as a result of increased demand for water (abstraction) or wastewater treatment due to the Local Plan, either alone or in combination with other plans or projects.

Direct pollution

6.35 The HRA Screening identified likely significant effects on the Essex Estuaries SAC and its associated Ramsar Sites [Blackwater Estuary (Mid Essex

Coast Phase 4) Ramsar), Colne Estuary (Mid Essex Coast Phase 2) Ramsar, Crouch & Roach Estuaries (Mid Essex Coast Phase 3) Ramsar, Dengie (Mid Essex Coast Phase 1) Ramsar and Stour & Orwell Ramsar], due to direct pollution from development adjacent to the Blackwater, Brain, Colne, Stour or Ter rivers or their tributaries. This would affect the SAC and Ramsar habitats and aquatic/intertidal plants and invertebrates.

6.36 In addition to Policies LPR 73 and LPR 74 (see paragraph 6.2) which provide general protection for Habitats Sites, the following policies provide additional safeguards that would mean that the risk of pollution occurring is low:

- Policy LPR 85 Surface Water Management Plan – requires sustainable drainage (SuDS) within all developments (except minor housing extensions) in Critical Drainage Areas.
- Policy LPR 86 Sustainable Urban Drainage Systems - requires all development of 10 dwellings or more and major commercial development, car parks and hard standings to incorporate SuDS; unless there is, for example, significant risk of pollution to the water environment.
- Policy LPR 80 Protecting and Enhancing Natural Resources, Minimising Pollution and Safeguarding from Hazards – states that new developments should prevent unacceptable risks from all emissions and other forms of pollution (including light and noise pollution), and ensure no deterioration to air or water quality (surface & ground water and soils).

There will be no adverse effects on the integrity of Essex Estuaries SAC, Blackwater Estuary, Colne Estuary Ramsar, Crouch & Roach Estuaries Ramsar, Dengie Ramsar or Stour & Orwell Estuaries Ramsar, as a result of direct pollution due to the Local Plan, either alone or in combination with other plans or projects.

Chapter 7

Conclusions and next steps

7.1 The HRA Screening was able to rule out likely significant effects relating to physical damage or loss of habitat, non-physical disturbance, and dust.

7.2 The other assessed impact pathways were subject to Appropriate Assessment, in which mitigation measures were taken into account. In summary, the conclusions were:

- Air pollution (vehicle emissions): adverse effects on integrity are uncertain and cannot yet be ruled out at Blackwater Estuary (Mid Essex Coast Phase 4) SPA & Ramsar, Essex Estuaries SAC, and Abberton Reservoir SPA/Ramsar. Further assessment is required, as set out below.
- Air pollution (industrial emissions): existing regulatory mechanisms are sufficient to avoid adverse effects on integrity.
- Recreation pressure: policy wording and the management of visitors at Abberton Reservoir are sufficient to avoid adverse effects on integrity, but amendments to policy wording are recommended for clarity in relation to the Essex Coast RAMS (Bird Aware Essex Coast).
- Increased demand for water (abstraction): consultation with Anglian Water is required to confirm recommendations in the WCS; e.g. the Local Plan water efficiency standard may need to be tightened. Adverse effects on the integrity of Abberton Reservoir SPA/Ramsar (indirectly) or Essex Estuaries SAC, Blackwater Estuary Ramsar, Colne Estuary Ramsar, Crouch & Roach Ramsar, Dengie Ramsar and Stour & Orwell Estuaries Ramsar are uncertain and cannot yet be ruled out.
- Increased need for wastewater treatment: consultation with Anglian Water is required to confirm recommendations in the WCS; e.g. the certainty that permit limits can be tightened. Adverse effects on the integrity of Essex Estuaries SAC, Blackwater Estuary Ramsar, Colne Estuary Ramsar,

Crouch & Roach Ramsar, Dengie Ramsar, and Stour & Orwell Estuaries Ramsar are uncertain and cannot yet be ruled out

- Direct pollution (run-off): policy wording is sufficient to avoid adverse effects on integrity.

Recommended actions

Functionally linked habitats

7.3 There is currently insufficient information to rule out adverse effects due to loss of (or non-physical disturbance at) functionally linked habitats used by golden plover or lapwing from Abberton Reservoir SPA, Blackwater Estuary SPA, Colne Estuary SPA or Stour & Orwell Estuaries SPA.

7.4 It is recommended that a desk study is undertaken, in the first instance, to identify the potential of greenfield site allocations within 15km of the Habitats Sites with lapwing or golden plover to be suitable for use by these species. The appraisal of suitability should be based on information obtainable from aerial photography and public datasets (e.g. priority habitats), to determine likely land use and the presence of features likely to deter lapwing or golden plover (e.g. proximity to human disturbance, or small field size). If some site allocations are considered suitable for use by golden plover or lapwing, then the next steps should be agreed with Natural England and may include additional mitigation in policy (e.g. ecological surveys).

Traffic and air quality assessment

7.5 There is currently insufficient data to quantify changes in traffic flows that could arise from development associated with the Local Plan and the impacts on air quality.

7.6 Traffic data will need to show current traffic flows (AADT for all traffic and for HDVs) and modelled flows at the end of the plan period (with and without Local Plan development) and identify the affected road network, in line with Design Manual for Roads and Bridges guidance LA105 [see reference 38]. It will then need to assess the changes in traffic flow where roads pass within 200m of a Habitats Sites (possibly the B1026 at Maldon and Layer-de-la-Haye).

7.7 If this data shows increases of more than 1,000 AADT or 200 HDV from the Local Plan alone or in combination with other plans and projects, then further air quality assessment will be required in line with Institute of Air Quality Management and Natural England guidance [see references 39 & 40]. Ecological assessment (desk study and/or site survey) may also be needed, if impacts cannot be ruled out on the basis of traffic or air quality assessment findings. If adverse effects on the integrity of a site are identified, mitigation would need to be agreed, tested and secured prior to the adoption of the Local Plan.

Policy wording supporting Essex Coast RAMS (Bird Aware Essex Coast)

7.8 Although the wording of Policies LPR 73 & 74 are likely to result in sufficient mitigation being provided to avoid adverse effects on the integrity due to recreation pressure, it is recommended that the policy wording is strengthened for clarity.

7.9 Policy LPR 74 and/or LPR 73 should provide additional guidance on the circumstances in which additional open space provision will be required, to mitigate recreation pressure at the Essex Coast Habitats Sites. The requirement could also be cross-referenced in the relevant site allocation policies.

Consultation with Anglian Water

7.10 The WCS for the Local Plan and Anglian Water's WRMP 2024 and its HRA are being finalised alongside the Local Plan process. Anglian Water will need to be consulted on the conclusions and recommendations in the WRC and the Local Plan updated to accommodate any recommended changes agreed with Anglian Water (e.g. the water efficiency standard in Policy LPR 82).

Next steps for the Local Plan and HRA

7.11 This HRA will be published for consultation alongside the Local Plan Review 2041 Preferred Options Consultation (Regulation 18) version.

7.12 The HRA will then be updated for the Regulation 19 consultation, to take into account:

- Any changes made to the Local Plan;
- Comments from statutory consultees; and
- Any additional information arising from, for example, the recommended actions, above.

LUC

March 2026

Appendix A

Habitats Sites information

A.1 This appendix contains information about the Habitats Sites considered in 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) and the Standard Data Forms or Ramsar Information Sheets available from the JNCC website. Site conservation objectives are drawn from Natural England's website and are only available for SACs and SPAs.

Abberton Reservoir SPA & Ramsar site

Site description

A.2 Abberton Reservoir is a large water storage reservoir close to the Essex coast. It is one of the most important reservoirs in the country for overwintering waterfowl and also supports substantial aggregations of moulting birds in early autumn and a large colony of tree-nesting cormorants. Causeways divide the reservoir into three sections.

Qualifying features

A.3 SPA:

- *Podiceps cristatus*; Great crested grebe (Non-breeding)
- *Phalacrocorax carbo;* Great cormorant (Breeding)
- *Cygnus olor;* Mute swan (Non-breeding)

- Eurasian wigeon (Non-breeding), *Anas penelope;*
- Gadwall (Non-breeding), *Anas strepera;*
- Eurasian teal (Non-breeding), *Anas crecca;*
- Northern shoveler (Non-breeding), *Anas clypeata;*
- Common pochard (Non-breeding), *Aythya ferina;*
- Tufted duck (Non-breeding), *Aythya fuligula;*
- Common goldeneye (Non-breeding), *Bucephala clangula;*
- Common coot (Non-breeding), *Fulica atra;*
- European golden plover (Non-breeding), *Pluvialis apricaria;*

A.4 Ramsar:

- Supports 23787 waterfowl (5 year peak mean 1998/99-2002/2003) including the following internationally important waterbird assemblage:
  - Gadwall, *Anas strepera strepera;*
  - Northern shoveler, *Anas clypeata*;
  - Eurasian wigeon, *Anas Penelope*;
  - Mute swan, *Cygnus olor*
  - Common pochard, *Aythya farina*;
  - Great cormorant, *Phalacrocorax carbo carbo;*
  - Eurasian teal*, Anas crecca*;
  - Tufted duck, Aythya fuligula;
  - Common coot, *Fulica atra atra;*
  - Pied avocet, *Recurvirostra avosetta;*
  - Ruff, *Philomachus pugnax;*
  - Black-tailed godwit, *Limosa limosa islandica;*

- Spotted redshank, *Tringa erythropus*,
- Common greenshank, *Tringa nebularia*,
- Common goldeneye, *Bucephala clangula.*

Key vulnerabilities

- Siltation – high sediment load in reservoir inflow due to agricultural practices within catchment.
- 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.
- 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.
- Changes in species distributions – unexplained decline in designated population of cormorant.
- Bird strike – death of designated mute swans and possibly other species from collision with overhead powerlines near reservoir.
- 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.
- 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.
- 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.

- 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.

Conservation objectives

A.5 With regard to the individual species and/or assemblage of species for which the site has been classified:

- 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.

A.6 Subject to natural change, to maintain or restore:

- 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.

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

A.7 In general, the qualifying bird species of the SPA & Ramsar rely on:

- The sites ecosystem as a whole (see list of habitats below).

- Maintenance of populations of species that they feed on (see list of diets below).
- Off-site habitat, which provide foraging habitat for these species.
- Open landscape with unobstructed line of sight within nesting, foraging or roosting habitat.

A.8 *Podiceps cristatus*; Great crested grebe (Non-breeding):

- Habitat preference – Reed-bordered lakes, gravel pits, reservoirs and rivers. In the winter, they are also found along the coast.
- Diet – Mostly fish, some aquatic invertebrates esp in summer.

A.9 *Phalacrocorax carbo;* Great cormorant (Breeding):

- Habitat preference – Larger lakes and coastal habitat
- Diet – Fish, mostly by diving from surface.

A.10 *Cygnus olor;* Mute swan (Non-breeding):

- Habitat preference – Lakes, ponds & rivers.
- Diet – Aquatic vegetation (to 1m deep), also grazes on land; occasionally takes insects, molluscs, small amphibians.

A.11 *Anas penelope;* Eurasian wigeon (Non-breeding):

- Habitat preference – Marsh, lakes, open moor, and on migration also estuaries.
- Diet – Mostly leaves, shoots, rhizomes, also some seeds.

A.12 *Anas strepera;* Gadwall (Non-breeding):

- Habitat preference – Marshes, lakes, and on migration also rivers and estuaries.
- Diet – Leaves, shoots, mostly while swimming with head under water.

A.13 *Anas crecca;* Eurasian teal (Non-breeding):

- Habitat preference – Lakes, marshes, ponds & shallow streams.
- Diet – Omnivorous, mostly seeds in winter, feeds mostly at night in shallow water.

A.14 *Anas clypeata;* Northern shoveler (Non-breeding):

- Habitat preference – Shallow lakes, marsh, reedbed & wet meadow.
- Diet – Omnivorous, esp. small insects, crustaceans, molluscs, seeds; filters particles with sideways sweeping of bill.

A.15 *Aythya ferina;* Common pochard (Non-breeding):

- Habitat preference – Lakes & slow rivers, and on migration also estuaries.
- Diet – Mostly plant material, also small animals.

A.16 *Aythya fuligula;* Tufted duck (Non-breeding):

- Habitat Preference – Marshes, lakes, and on migration also rivers, estuaries.
- Diet – Omnivorous, feeds on mud bottom mostly by diving.

A.17 *Bucephala clangula;* Common goldeneye (Non-breeding):

- Habitat preference – Lakes, rivers, and on migration also seacoasts.
- Diet – Insects, molluscs and crustaceans, mainly by diving.

A.18 *Fulica atra*; Common coot (Non-breeding):

- Habitat preference – Lakes, marsh, rivers, and coast.
- Diet – Omnivorous, but mostly aquatic plants.

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

Site description

A.19 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.

A.20 Overlaps with part of Essex Estuaries SAC.

Qualifying features

A.21 SPA:

- Waterbird assemblage:
  - Dark-bellied brent goose (Non-breeding), *Branta bernicla bernicla;*
  - Common pochard (Breeding), *Aythya ferina;*
  - Hen harrier (Non-breeding), *Circus cyaneus;*
  - Ringed plover (Breeding), *Charadrius hiaticula;*
  - Grey plover (Non-breeding), *Pluvialis squatarola;*
  - Dunlin (Non-breeding), *Calidris alpina alpina;*
  - Black-tailed godwit (Non-breeding), *Limosa limosa islandica;*
  - Little tern (Breeding), *Sterna albifrons.*
- Additional qualifying features identified by the 2001 UK SPA review:
  - Common shelduck (Non-breeding), *Tadorna tadorna;*

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

A.22 Ramsar:

- 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:
  - water beetle *Paracymus aeneus*;
  - damselfly *Lestes dryas*;
  - flies Aedes flavescens, *Erioptera bivittata, Hybomitra expollicata*;
  - spiders *Heliophanus auratus and Trichopterna cito*;
  - beetles *Baris scolopacea, Philonthus punctus, Graptodytes bilineatus and Malachius vulneratus*;
  - flies *Campsicemus magius, Myopites eximia*;
  - moths *Idaea ochrata and Malacosoma castrensis*;
  - spider *Euophrys.*
- Supports a full and representative sequences of saltmarsh plant communities covering the range of variation in Britain.
- Supports the following internationally important wildfowl assemblage:
  - Dark-bellied brent goose, *Branta bernicla*;
  - Grey plover*, Pluvialis squatarola*;
  - Dunlin, *Calidris alpina alpine*;
  - Black-tailed godwit, *Limosa limosa islandica*;

- European golden plover, *Pluvialis apricaria apricaria*;
- Common redshank, *Tringa totanus totanus*.

Key vulnerabilities

- 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 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.
- 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.
- 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.
- 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.
- Invasive species – An increase in Pacific oyster Crassostrea gigas settlement and colonisation within the Habitats Marine Site 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.

- 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.
- 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.

Conservation objectives

A.23 With regard to the individual species and/or assemblage of species for which the site has been classified:

- 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.

A.24 Subject to natural change, to maintain or restore:

- 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.

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

A.25 In general, the qualifying bird species of the SPA & Ramsar rely on:

- The sites ecosystem as a whole (see list of habitats below).
- Maintenance of populations of species that they feed on (see list of diets below).
- Off-site habitat, which provide foraging habitat for these species.
- Open landscape with unobstructed line of sight within nesting, foraging or roosting habitat.

A.26 Dark-bellied brent goose (Non-breeding); *Branta bernicla bernicla*:

- Habitat preference – Tundra, and on migration marshes and estuaries.
- Diet – Vegetation, especially eel-grass.

A.27 Common pochard (Breeding); *Aythya farina:*

- 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.

A.28 Hen harrier (Non-breeding); *Circus cyaneus*:

- Habitat preference – Moor, marsh, steppe and fields.
- Diet – Mainly small birds and mammals.

A.29 Ringed plover (Breeding); *Charadrius hiaticula*:

- Habitat preference – Sandy areas with low vegetation, and on migration estuaries.
- Diet – In summer, invertebrates and in winter primarily marine worms, crustaceans and molluscs.

A.30 Grey plover (Non-breeding); *Pluvialis squatarola*:

- Habitat preference – Tundra, and on migration pasture and estuaries.
- Diet – In summer, invertebrates and in winter primarily marine worms, crustaceans and molluscs.

A.31 Dunlin (Non-breeding); *Calidris alpina alpine*:

- Habitat preference – Tundra, moor, heath, and on migration estuaries and coastal habitat.
- Diet – Insects, snails and worms.

A.32 Black-tailed godwit (Non-breeding*); Limosa limosa islandica*:

- Habitat preference – Marshy grassland and steppe, and on migration mudflats.
- Diet – Insects, worms and snails, but also some plants, beetles, grasshoppers and other small insects during the breeding season.

A.33 Little tern (Breeding); *Sterna albifrons*:

- Habitat preference – Seacoasts, rivers and lakes.
- Diet – Small fish and invertebrates.

A.34 Waterbird assemblage:

- 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.

A.35 Habitats:

- 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.

A.36 Invertebrates:

- These species are reliant on the saltmarsh habitat and characteristic flora and fauna that are present within the Habitats Site. Key sources of food range from flowering plants, organic matter and other invertebrate species.

Breckland SPA

Site description

A.37 The Breckland SPA is located in parts of both Norfolk and Suffolk in the heart of East Anglia. It forms part of The Brecks National Character Area (NCA 85), which has an ages-old identity, a very particular land use history and a richly distinctive wildlife, which sets it apart from all surrounding landscapes. The semi-continental climate, with low rainfall and free-draining soils, has led to the development of dry heath and grassland communities.

A.38 Breckland SAC overlaps part of the SPA but is beyond 20km from the Braintree district boundary.

Qualifying features

- Nightjar (*Caprimulgus europaeus*), Breeding
- Stone-curlew (*Burhinus oedicnemus*), Breeding

- Woodlark (*Lullula arborea*), Breeding

Key vulnerabilities

A.39 Lack of ground disturbance – Insufficient creation and/or maintenance of bare ground and early successional vegetation communities (dry heath, dune and calcareous grassland). This affects both SAC habitat and its characteristic invertebrate species, and SPA species (Stone curlew, Woodlark).

A.40 Undergrazing – Undergrazing, both by domestic livestock and wild rabbits affects the majority of grassland & heathland sites throughout the SPA/SAC, which puts at risk the quality of SAC habitats and their characteristic species, inlcuding SPA bird species.

A.41 Forestry and woodland management – There has been a significant decline in the numbers of woodlark and nightjar since the SPA classification. This can be largerly explained by the loss of available habitat through the natural cycle of timber harvesting. For woodlark there is also some decline in habitat quality.

A.42 Water pollution – There has been a considerable loss of aquatic species in Ringmere and high nutrient levels recorded in previous water analysis suggest nutrients are impacting the mere. Langmere too shows signs of nutrient enrichment.

A.43 Changes in species distributions – There are significant declines of rare and scarce vascular plant species that are part of SAC habitat. Characteristic rare and scarce lichens of calcareous grass heath have largely disappeared from their historic sites, and lichen heath in general is in decline more broadly across heaths and grasslands. This affects the quality of the SAC habitats.

A.44 Stone curlew monitoring and intervention – Stone Curlew have adapted to breed on arable farmland. Nests and chicks are vulnerable to some farming

operations at specific times, especially because they are well camouflaged and chicks tend to stay motionless when disturbed. Breeding success is improved by monitoring and intervention: working with farmers to locate nests and temporarily remove chicks during farming operations. Provision of nesting plots also contributes to maintianing and enhacing the population. These actions require continued collaboration and funding.

A.45 Planning permission – Development, especially for housing, roads and solar farms can impact on SPA species (Stone curlew, Woodlark, Nightjar). Detailed, robust information submitted by applicants is required to enable Competent Authorities and statutory consultees to assess planning applications both for their impact and mitigation. Co-ordination of baseline information for European sites and features from partners is also needed to ensure a full assessment can be made.

A.46 Monitoring – Continued and expanded monitoring of SPA species and their habitat is essential to targeting appropriate management and identify the impacts of, and potential mitigation for, development. There is insufficient certainty of funding of monitoring, together with incomplete coverage of existing monitoring effort.

A.47 Air pollution (atmospheric nitrogen deposition) – Nitrogen deposition exceeds site relevant critical loads for ecosystem protection and hence there is a risk of harmful effects.

A.48 Public access / disturbance - Recreational and other activities have the potential to impact both SAC and SPA features. Disturbance does not currently appear to be significantly impacting the bird populations, but the impacts of increased recreational activity is uncertain. Recreational growth in Thetford Forest may impact on woodlark and nightjar. The forest is a major recreational attraction in the region. Similarly, military training activities have the potential to impact ground nesting birds, especially stone curlew, but the extent of this impact is unclear. SAC features may be affected through eutrophication (dog fouling, unauthorised fires) and disturbance of soils, in particular on commons and heaths.

A.49 Climate change – Perceived effects of climate change could result in impacts on parched grassland, heath and dune communities, as well as component rare species.

A.50 Changes in species distributions – Heather appears to be dying back on a number of heather heaths (WHH, BH, STA), which is not currently explained by management, age cycle or known pathogens.

A.51 Inappropriate scrub control – Excess growth of scrub and trees is affecting open heath and calcareous grasslands. Payment rates for scrub clearance in HLS are too low, whilst availabilty of capital funds for additional HLS capital works plans is too limited.

A.52 Inappropriate management practices – There is an over-emphasis in site management on heather (especially in its mature phase), as opposed to heathland community, especially the early successional phases, and the dynamism between heathland and grassland communities.

A.53 Habitat fragmentation – Some heaths are relatively small and the connectivity between these and the larger heaths too, is poor. In some cases the individual heaths are physically isolated and the landscape in between is hostile to species dispersal.

A.54 Inappropriate weed control – Invasion of dry heath, dune and calcareous grassland by *Calamagrostis epigejos*.

A.55 Inappropriate pest control – Predation on ground-nesting SPA species, especially Stone curlew and Woodlark.

A.56 Changes in species distributions – Grey hair-grass *Corynephorus canescens* has been lost from one of the two component sites (WWC) where is has previously occurred, and declined in the other (RAFL).

A.57 Inappropriate cutting / mowing - Chalk grassland communities on Barnham Cross Common have declined as a result of a sub-optimal cutting regime.

Conservation objectives

A.58 Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring:

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

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

A.59 The Annex 1 breeding bird species have adapted to live in arable and forestry habitats, and are supported by a mosaic of habitats. Some of the supporting habitats are the qualifying features of Breckland SAC, which underlies part of the SPA: Alluvial forests with *Alnus gultinosa* and *Fraxinus excelsior;* European dry heaths, Inland dunes with open *Corynephorus* and *Agrostic grasslands*; Natural eutrophic lakes with *Magnopotamion* or *Hydrocharition* type vegetation; Semi-natural dry grassland and scrubland facies on calcareous substrates (*Festuco-Brometalia*).

A.60 The regular, rotational clear-felling of select areas of plantation forest creates suitable breeding habitat for SPA bird species which utilise the early

years of re-planted blocks. Whilst this commercial practice seeks to secure a more even timber supply through smoothing out peaks and troughs, it also supports SPA species. Areas of heathland created and maintained within the forestry areas create more permanent areas suitable for breeding and feeding of all three SPA species, with an open mosaic of forest and heath.

A.61 Eurasian stone curlew, *Burhinus oedicnemus* (Breeding) - Stone-curlew breed on the heaths and grassland, as well as on the arable land and occasionally within conifer plantations, especially on areas of heath created within the forest. In recent times they have taken to nesting on fallow land. Stone-curlews use resources outside their immediate breeding areas in the SPA, including arable land and heaths for post-breeding flocks.

A.62 European nightjar, *Caprimulgus europeus* (Breeding) - Nightjar breed almost exclusively in afforested land, particularly in clear-fells and young plantations, and use open heaths and grasslands together with some arable land outside of the forest for feeding. Nightjar also use resources outside their immediate breeding areas in the SPA.

A.63 Woodlark, *Lullula arborea* (Breeding) - Woodlark utilise the open grassland and heather heaths for breeding and occasionally nest on the margins of arable areas. In recent times they have taken to nesting on fallow land and the system of rotational clear-felling within the conifer plantations also provides ideal breeding conditions for woodlark. Outside the confines of the forest woodlark use both grasslands and arable land for feeding. Woodlark use resources outside their immediate breeding areas in the SPA, while some remain within the SPA for winter feeding.

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

Site description

A.64 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 Sterna albifrons 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.

A.65 The Colne Estuary is an integral component of the phased Mid-Essex Coast SPA and overlaps with part of Essex Estuaries SAC.

Qualifying features

A.66 SPA:

- Annex I populations of the following species:
- During the breeding season -
  - Little Tern; *Sterna albifrons*
- Over winter -
  - Avocet; *Recurvirostra avosetta*
  - Golden Plover; *Pluvialis apricaria*

- Hen Harrier; *Circus cyaneus*

- This site also qualifies under Article 4.2 of the Directive (79/409/EEC) by supporting populations of Habitats importance of the following migratory species:
- Over winter -
  - Dark-bellied Brent Goose; *Branta bernicla bernicla*
  - Redshank; *Tringa totanus*
- The area qualifies under Article 4.2 of the Directive (79/409/EEC) by regularly supporting at least 20,000 waterfowl

A.67 Ramsar:

- Ramsar criterion 1 - The site is important due to the extent and diversity of saltmarsh present.
- Ramsar criterion 2 - The site supports 12 species of nationally scarce plants and at least 38 British Red Data Book invertebrate species.
- Ramsar criterion 3- This site supports a full and representative sequence of saltmarsh plant communities covering the range of variation in Britain.
- Ramsar criterion 5 - Assemblages of international importance:
  - Species with peak counts in winter:
  - 32041 waterfowl (5 year peak mean 1998/99-2002/2003)
- Ramsar criterion 6 - Species/populations occurring at levels of international importance. Qualifying Species/populations (as identified at designation):
  - Species with peak counts in winter:
  - Dark-bellied brent goose, *Branta bernicla bernicla;*
  - Common redshank, *Tringa totanus totanus.*

Key vulnerabilities

A.68 Similar to Blackwater Estuary SPA (see above).

Conservation objectives

A.69 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.

A.70 Subject to natural change, to maintain or restore:

- 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.

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

A.71 In general, the qualifying bird species of the SPA & Ramsar rely on:

- The sites ecosystem as a whole (see list of habitats below).
- Maintenance of populations of species that they feed on (see list of diets below).
- Off-site habitat, which provide foraging habitat for these species.

- Open landscape with unobstructed line of sight within nesting, foraging or roosting habitat.

A.72 Dark-bellied brent goose (Non-breeding), *Branta bernicla bernicla*:

- Habitat Preference – Tundra, and on migration marshes and estuaries.
- Diet - Vegetation, especially eel-grass.

A.73 Common pochard (Breeding), *Aythya farina*:

- Habitat Preference – Lakes & slow rivers, and on migration also estuaries
- Diet – Mostly plant material, also small animals.

A.74 Hen harrier (Non-breeding), *Circus cyaneus*:

- Habitat Preference – Moor, marsh, steppe and fields.
- Diet – Mainly small birds and mammals.

A.75 Ringed plover (Breeding), *Charadrius hiaticula*:

- Habitat Preference – Sandy areas with low vegetation, and on migration estuaries.
- Diet – In summer, invertebrates and in winter primarily marine worms, crustaceans and molluscs.

A.76 Common redshank (Non-breeding), *Tringa totanus*:

- Habitat preference – Rivers, wet grassland, moors and estuaries.
- Diet – Invertebrates, especially earthworms, cranefly larvae (inland) crustaceans, molluscs, marine worms (estuaries).

A.77 Little tern (Breeding), *Sterna albifrons*:

- Habitat preference – Seacoasts, rivers and lakes.
- Diet – Small fish and invertebrates.

A.78 Black-tailed godwit, *Limosa limosa islandica*

- Habitat preference – Marshy grassland and steppe, and on migration mudflats.
- Diet – Insects, worms and snails, but also some plants, beetles, grasshoppers and other small insects during the breeding season.

A.79 Habitats:

- 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.

A.80 Plants:

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

A.81 Invertebrates:

- These species are reliant on the saltmarsh habitat and characteristic flora and fauna that are present within the Habitats Site. Key sources of food range from flowering plants, organic matter and other invertebrate species.

Crouch & Roach Estuaries (Mid-Essex Coast Phase 3) SPA & Ramsar site

Site description

A.82 The Crouch & Road Estuaries are located on the coast of Essex in Eastern England. The River Crouch occupies a shallow valley between two ridges of London clay, while the River Roach is predominantly set between areas of brick earth and loams with patches of sand and gravel. The estuaries have a narrow intertidal zone mainly composed of tidal mud. The estuary is of importance for over 25,000 wintering waterbirds as well as a range of aquatic and terrestrial invertebrates and nationally rare plants.

A.83 The Crouch & Roach Estuaries are an integral part of a suite of important nature reserves along the mid-Essex coast and overlaps with part of Essex Estuaries SAC.

Qualifying features

A.84 SPA:

- Dark-bellied brent goose; *Branta bernicla bernicla* (Non breeding); and
- Waterbird assemblage.

A.85 Ramsar:

- Ramsar Criterion 2 - The site supports an appreciable assemblage of nationally rare, vulnerable, or endangered species or subspecies of plant or animal. These include:
  - 13 nationally scarce plant species: Slender hare's ear *Bupleurum tenuissimum*, Divided sedge *Carex divisa*, Sea barley Hordeum

marinum, Golden-samphire *Limbarda crithmoides*, Lax-flowered sea lavender *Limonium humile*, Curved hard grass *Parapholis incurva*, Borrer's saltmarsh grass *Puccinellia fasciculata*, Stiff saltmarsh grass *Puccinellia rupestris*, Spiral tasselweed *Ruppia cirrhosa*, One flowered glasswort *Salicornia pusilla*, Small cord-grass *Spartina maritima*, Shrubby sea-blite *Suaeda vera* and Sea clover *Trifolium squamosum*; and

- Several nationally rare and/or vulnerable invertebrate species, e.g., Scarce emerald damselfly *Lestes dryas*, the shorefly *Parydroptera discomyzina*, the soldierfly *Stratiomys singularior*, the large horsefly *Hybomitra expollicata*, the beetles *Graptodytes bilineatus* and *Malachius vulneratus*, the moth species *Malacosoma castrensis* and *Eucosma rubescana* (*Eucosma catoptrana*).

- Ramsar Criterion 5 - The site is regularly used by 27,021 individual waterbirds over winter (5-year peak mean 1990/91 – 1994/95).
- Ramsar Criterion 6 - The site regularly supports 2.2% of the global population of non-breeding (wintering) Dark-bellied brent goose *Branta bernicla bernicla* (5,509 individuals, 5-year peak mean 1989/90 - 1993/94).

Key vulnerabilities

A.86 Similar to Blackwater Estuary SPA (see above).

Conservation objectives

A.87 Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring:

- The extent and distribution of the habitats of the qualifying features;
- The structure and function of the habitats of the qualifying features;

- The supporting processes on which the habitats of the qualifying features rely;
- The population of each of the qualifying features; and
- The distribution of the qualifying features within the site.

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

A.88 In general, the qualifying bird species of the SPA rely on:

- The sites ecosystem as a whole (see list of habitats below);
- Maintenance of populations of species that they feed on (see list of diets below);
- Off-site habitat, which provide foraging habitat for these species; and
- Open landscape with unobstructed line of sight within nesting, foraging or roosting habitat

A.89 Dark-bellied brent goose; *Branta bernicla bernicla* (Non-breeding)

- Habitat preference – Tundra, and on migration marshes and estuaries.
- Diet – Vegetation, especially eel-grass.

A.90 Hen harrier; *Circus cyaneus* (Non-breeding)

- Habitat preference – Moor, marsh, steppe and fields.
- Diet – Mainly small birds and mammals.

A.91 Waterbird Assemblage

- Many of the assemblage species, including the majority of the waders, feed mainly or exclusively on exposed intertidal sediments and saltmarsh

at low tide and congregate to roost at high tide on higher areas of saltmarsh or sometimes on adjacent grazing marshes.

- Other habitats of importance for assemblage species include, along the Crouch, mildly brackish lagoons at Saltcoats and Lower Raypits, fleets within grazing marshes at Marsh Farm and Blue House Farm and, north of the Roach, a fresh water reservoir adjacent to Stannetts Creek

Dengie (Mid-Essex Coast Phase 1) SPA & Ramsar site

Site description

A.92 Dengie is located on the coast of Essex in eastern England. It is a large and remote area of tidal mud-flats and saltmarshes at the eastern end of the Dengie peninsula, between the adjacent Blackwater and Crouch Estuaries. The saltmarsh is the largest continuous example of its type in Essex. Foreshore, saltmarsh and beaches support an outstanding assemblage of rare coastal flora. It is of importance for wintering populations of Hen Harrier; Circus cyaneus, wildfowl and waders. The formation of cockleshell spits and beaches is of geomorphological interest.

A.93 Overlaps with part of Essex Estuaries SAC.

Qualifying features

A.94 SPA:

- Dark-bellied brent goose; *Branta bernicla bernicla* (Non-breeding)
- Hen harrier; *Circus cyaneus* (Non-breeding)
- Grey Plover; *Pluvialis squatarola* (Non-breeding)

- Red knot; *Calidris canutus* (Non-breeding)
- Waterbird assemblage

A.95 Ramsar:

- Ramsar Criterion 2 - 11 species of nationally scarce plants: *Crambe maritima, Hordeum marinum, Inula crithmoides, Limonium humile*, the glassworts *Salicornia perennis* and *S. pusilla, Spartina maritima, Suaeda vera*, and the eelgrasses *Zostera angustifolia, Z. marina* and *Z. noltii*. The invertebrate fauna includes Red Data Book Species including a weevil *Baris scolopacea*, a horsefly *Atylotus latistriatus* and a jumping spider *Euophrys browningi*.
- Ramsar Criterion 5 - The Dengie regularly supports over 20,000 waterfowl in winter.
- Ramsar Criterion 6 - The Dengie had, in the five year period 1987/88 to 1991/92, an average peak count of 27,947 birds, comprising 3,146 wildfowl and 24,901 waders. In addition, the Dengie has over the same period regularly supported, in winter, internationally important populations of species of waterfowl: 2,250 *Branta bernicla bernicla* (1.3% of the total world population), 7,763 *Calidris canutus* (2.2% of east Atlantic flyway pop.) and 1,752 *Pluvialis squatarola* (1% of the east Atlantic flyway pop.).

Key vulnerabilities

A.96 Similar to Blackwater Estuary SPA (see above).

Conservation objectives

A.97 Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring:

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

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

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

A.98 In general, the qualifying bird species of the SPA rely on:

- The sites ecosystem as a whole (see list of habitats below);
- Maintenance of populations of species that they feed on (see list of diets below);
- Off-site habitat, which provide foraging habitat for these species; and
- Open landscape with unobstructed line of sight within nesting, foraging or roosting habitat.

A.99 Dark-bellied brent goose; *Branta bernicla bernicla* (Non-breeding)

- Habitat Preference – Tundra, and on migration marshes and estuaries.
- Diet – Vegetation, especially eel-grass.

A.100 Hen harrier; *Circus cyaneus* (Non-breeding)

- Habitat Preference – Moor, marsh, steppe and fields
- Diet – Mainly small birds and mammals

A.101 Grey plover; *Pluvialis squatarola* (Non-breeding)

- Habitat Preference – Tundra, and on migration pasture and estuaries.

- Diet – In summer, invertebrates and in winter primarily marine worms, crustaceans and molluscs.

A.102 Red knot; *Calidris canutus* (Non-breeding)

- Habitat Preference – Tundra, and on migration coastal habitat.
- Diet – In summer, insects and plant material, and in winter inter-tidal invertebrates, esp molluscs.

A.103 Waterbird assemblage

- This relies on a variety of habitats to support population numbers, including intertidal mudflats and sandflats, boulder and cobble shores (shingle and shell banks), and saltmarsh.
- The open coast nature of the site and the large continuous extent of the saltmarsh means that high tide roosts are spread across the length of the site with the waterbirds mainly using the seaward edge of the saltmarsh.
- However, on the highest spring tides the low saltmarsh is substantially immersed, and then the waterbirds are forced over the seawall to roost and loaf on the fields beyond the borrow dyke. These arable fields are outside of the SPA boundary.

Devil's Dyke SAC

Site description

A.104 The Devil's Dyke holds an extensive area of species-rich chalk grassland of a type characteristic to chalklands of south, central and eastern England. The Dyke is an ancient linear earthwork comprising a deep ditch and high bank. It was originally colonised by plants from adjacent grassland (much of which is now arable) and remains as one of the few areas still supporting these vegetation communities.

Qualifying features

A.105 Semi-natural dry grasslands and scrubland facies: on calcareous substrates (*Festuco-Brometalia*) - Dry grasslands and scrublands on chalk or limestone (important orchid sites).

Key vulnerabilities

- Inappropriate scrub control – There is some scrub encroachment which is beginning to become damaging on some parts of the site and is likely to cause the notified grassland to deteriorate. Grassland vegetation management is currently managed by hand cutting as grazing cannot be carried out due to equestrian practices which have taken place for centuries. The current HLS agreement does not provide sufficient funding to allow appropriate management of the sward because of the steepness of the site.
- Air pollution (risk of atmospheric nitrogen deposition) - Nitrogen deposition exceeds the site-relevant critical load for ecosystem protection and hence there is a risk of harmful effects, but the sensitive features are currently considered to be in favourable condition on the site.

Conservation objectives

A.106 Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:

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

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

A.107 In general, the qualifying habitat of the SAC relies on:

- Continuity of habitats within the site and connectivity to habitats within the wider landscape.
- Natural vegetation zonation / transitions between habitats.
- Resilience to environmental changes and stability of, for example, climate, hydrology, soils.
- Control of undesirable species.

A.108 The structure and function of the qualifying habitat, including its typical species, may rely upon the continued presence of areas which surround and are outside of the designated site boundary. Changes in surrounding land-use may adversely (directly/indirectly) affect the functioning of the feature and its component species. This supporting habitat may be critical to the typical species of the feature to support their feeding, breeding, roosting, population dynamics ('metapopulations'), pollination or to prevent /reduce/absorb damaging impacts from adjacent land uses e.g. pesticide drift, nutrient enrichment.

A.109 Some plant or animal species (or related groups of such species) make a particularly important contribution to the necessary structure, function and/or quality of an Annex I habitat feature at a particular site. These species will include:

- Structural species which form a key part of the Annex I habitat's structure or help to define that habitat on a particular SAC (see also the attribute for 'vegetation community composition').
- Influential species which are likely to have a key role affecting the structure and function of the habitat (such as bioturbators (mixers of soil/sediment),

grazers, surface borers, predators or other species with a significant functional role linked to the habitat).

- Site-distinctive species which are considered to be a particularly special and distinguishing component of an Annex I habitat on a particular SAC.

Essex Estuaries SAC

Site description

A.110 Large estuarine site in south-east England. The site comprises the major estuaries of the Colne, Blackwater, Crouch and Roach river.

A.111 Overlaps with the Mid-Essex Coast SPA and Ramsar sites (Blackwater Estuary, Colne Estuary, Crouch & Roach Estuaries, Stour & Orwell Estuaries).

Qualifying features

A.112 Annex 1 habitats that are a primary reason for selection of this site:

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

A.113 Annex 1 habitats present as a qualifying feature:

- Sandbanks which are slightly covered by seawater all the time

Key vulnerabilities

- 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.
- 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.
- Bottom towed fishing gear has been categorised as a 'Red' for the interest features listed, specifically the seagrass beds Zostera spp, a sub-feature of the SAC.
- 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.
- Invasive species – Non-native invasive species such as the American whelk tingle Urosalpinx cinerea and Slipper limpet Crepidula fornicata are known to occupy subtidal muddy habitats, potentially impacting native communities through competition for resources and predation. Invasive common cord grass may adversely affect plant species for which the Essex Estuaries SAC is designated.
- 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.

- 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.

Conservation objectives

A.114 With regard to the individual species and/or assemblage of species for which the site has been classified:

- 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.

A.115 Subject to natural change, to maintain or restore:

- 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.

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

A.116 Habitat:

- The qualifying habitats of the SAC are reliant a range of coastal factors, including salinity, sedimentation, tide, sea level, turbidity and elevation, which influence the interdependent intertidal, subtidal and terrestrial habitats. These factors influence the complex interdependent intertidal, subtidal and terrestrial habitats present along the coast.

A.117 Additional factors are provided below for each habitat (where relevant).

A.118 Sandbanks which are slightly covered by sea water all the time:

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

Stour and Orwell Estuaries SPA & Ramsar site

Site description

A.119 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 Enteromorpha, Zostera and Salicornia 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 Recurvirostra avosetta, 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.

A.120 The site has close ecological links with the Hamford Water and Mid-Essex Coast SPAs, lying to the south on the same coast.

Qualifying features

A.121 SPA:

- Annex I species:
- Over winter: Hen Harrier, *Circus cyaneus*
- This site also qualifies under Article 4.2 of the Directive (79/409/EEC) by supporting populations of Habitats importance of the following migratory species (over winter):
  - Black-tailed Godwit, *Limosa limosa islandica*;
  - Dunlin Calidris, *alpina alpina*;
  - Grey Plover, *Pluvialis squatarola*;
  - Pintail, *Anas acuta*;
  - Redshank, *Tringa totanus*;
  - Ringed Plover, *Charadrius hiaticula*;
  - Shelduck, *Tadorna tadorna*;
  - Turnstone, *Arenaria interpres*.
- The area qualifies under Article 4.2 of the Directive (79/409/EEC) by regularly supporting at least 20,000 waterfowl including:
  - Cormorant *Phalacrocorax carbo;*
  - Pintail *Anas acuta;*
  - Ringed Plover *Charadrius hiaticula;*

- Grey Plover *Pluvialis squatarola;*
- Dunlin Calidris *alpina alpine*;
- Black-tailed Godwit *Limosa limosa islandica;*
- Redshank *Tringa tetanus;*
- Shelduck *Tadorna tadorna;*
- Great Crested Grebe *Podiceps cristatus;*
- Curlew *Numenius arquata;*
- Dark-bellied Brent Goose *Branta bernicla bernicla*;
- Wigeon *Anas Penelope;*
- Goldeneye *Bucephala clangula;*
- Oystercatcher *Haematopus ostralegus;*
- Lapwing *Vanellus vanellus;*
- Knot *Calidris canutus;*
- Turnstone *Arenaria interpres.*

A.122 Ramsar:

- Ramsar criterion 2 - Contains seven nationally scarce plants:
  - Stiff saltmarsh-grass *Puccinellia rupestris;*
  - Small cord-grass *Spartina maritime;*
  - Perennial glasswort *Sarcocornia perennis;*
  - Lax-flowered sea lavender *Limonium humile;*
  - Eelgrasses *Zostera angustifolia, Z. marina and Z. noltei..*
- Ramsar criterion 5 - Assemblages of international importance; species with peak counts in winter; 63,017 waterfowl.
- Ramsar criterion 6 species/ populations occurring at levels of international importance - Species with peak counts in spring/autumn:

  - Common redshank, *Tringa totanus tetanus*.
- Species with peak counts in winter:
  - Dark-bellied brent goose, *Branta bernicla bernicla*;
  - Northern pintail, *Anas acuta*;
  - Grey plover, *Pluvialis squatarola;*
  - Red knot, *Calidris canutus islandica;*
  - Dunlin, *Calidris alpina alpina;*
  - Black-tailed godwit, *Limosa limosa islandica;*
  - Common redshank, *Tringa totanus tetanus.*

Key vulnerabilities

- 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.
- 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.
- 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.

- Invasive species – An increase in Spartina anglica may be affecting the growth of Spartina maritime, a key habitat feature for qualifying bird roosting and feeding areas of saltmarsh and mudflat.
- 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-standard' developments. b) Development outside the SPA boundary can have negative impacts, particularly on the estuaries' birds. c) Assessing the indirect, 'knock-on' effects of proposals. d) Pressure to relax planning conditions on existing developments.
- Air pollution: impact 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.
- 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.
- 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 Habitats 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.
- Erosion (Ramsar) – Natural coastal processes exacerbated by fixed sea defences, port development and maintenance dredging. Erosion is being tackled through sediment replacement for additional erosion that can be attributed to port development and maintenance dredging. A realignment site has been created on-site to make up for the loss of habitat due to

capital dredging. General background erosion has not been tackled although a Flood Management Strategy for the site is being produced.

Conservation objectives

A.123 With regard to the individual species and/or assemblage of species for which the site has been classified ("the Qualifying Features" listed below);

- 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.

A.124 Subject to natural change, to maintain or restore:

- 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.

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

A.125 In general, the qualifying bird species of the SPA rely on:

- The sites ecosystem as a whole (see list of habitats below).
- Maintenance of populations of species that they feed on (see list of diets below).
- Off-site habitat, which provide foraging habitat for these species.

- Open landscape with unobstructed line of sight within nesting, foraging or roosting habitat.

A.126 *Limosa limosa islandica*, Black-tailed Godwit:

- 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.

A.127 *Calidris alpina alpine*, Dunlin:

- Habitat Preference – Coastal habitat.
- Diet - Insects and plant material during the summer; and inter-tidal invertebrates, especially molluscs during the winter.

A.128 Plants:

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

Appendix B

Site allocations

Table B.1: Local Plan site allocations assessed in the HRA

Site allocation reference	Address	Proposed use	Capacity (number of homes)	Area (ha)
BCBG2010	John Pease Peugeot, Manor Street, Braintree	Residential	120	0.6
BCBG2500	B&M Home Bargains, Braintree	Residential and Employment	120	0.5
BLAN2019	Roundlay Farm, Pickpocket Lane, Black Notley	Residential	76	3.0
BLAN2027	Land at Friars Farm, Black Notley	Residential and Employment	480	23.1
BOCN2032	Land adjacent to The Coach House, Panfield Lane, Braintree	Residential and Employment	44	1.7
BOCN2033	Land on the East Side of the A131 High Garrett	Residential	125	6.85
BOCN2042	61 Broad Road, Braintree, CM7 9RU	Residential	30	1.3

Site allocation reference	Address	Proposed use	Capacity (number of homes)	Area (ha)
BURE2070	Land at Old Barn Road, Mount Bures, Bures Hamlet, CO8 5AN	Residential	8	0.7
COGG2084	Land south of Colchester Road, Coggeshall	Residential	200	12.8
COGG2085	Land to the south of West Street, Coggeshall	Residential and Employment	80	19.7
COLE2100	Land East of Bluebridge Ind Estate	Employment	0	11.5
CRES2101	Land East of Braintree	Residential	1350	164.6
CRES2102	Mill Lane, Cressing	Residential	78	9.1
EARL2123	Earls Colne Farm, Halstead Road, Earls Colne	Biodiversity Net Gain	0	9.2
FINC2502	Former RAF Wethersfield, Sculpins Lane,Wethersfield	Employment	8059	322.3
GGHR2141	Land to South East of Halstead	Residential	1100	86.7
GGHR2142	Land West and North of Star Stile Cottages, Star Stile Road, Halstead	Residential	20	1.3
GGHR2143	Halstead Hall, Braintree Road, Halstead	Residential	34	2.9
GGHR2146	Land West of Blamsters/Land at Mount Hill	Residential	55	5.5
GGHR2416	Land East of Colchester Road, Halstead	Other	0	4.8
GNBN2154	Land to the rear of 110 London Road, Braintree	Residential	20	0.7

Site allocation reference	Address	Proposed use	Capacity (number of homes)	Area (ha)
GOSF2156	Gosfield Business Park, The Old Airfield, Gosfield	Employment	0	3.0
GRNO2169	Land at Slamseys Farm, Blackley Lane, Great Notley	Employment	0	4.0
GRNO2505	(Other) Land at Slamseys Farm, Great Notley	Employment	0	2.9 (rest of site allocated as GRNO2169)
GRYE2175	Land North of Little Yeldham Road, Great Yeldham	Residential	30	2.2
GRYE2176	Land West of Nuns Walk	Residential	10	0.5
GRYE2177	Land Between 18 to 20 Toppesfield Road, Great Yeldham	Residential	5	0.4
GRYE2178	Land South of Toppesfield Road, Great Yeldham	Residential	1	0.2
HASA2179	Land North and East of Halstead	Residential	1610	128.9
HASA2180	The old wood yard site, Fenn Road, Halstead	Residential	54	2.1
HATF2185	Land off Maldon Road, Hatfield Peverel (Site has planning permission)	Residential	103	6.0
HATF2192	Land Adjacent to Crabb's Hill Farm, Crabb’s Hill, Hatfield Peverel	Residential	20	0.9
HATF2193	Land north of A12, Hatfield Peverel	Residential	900	61.1

Site allocation reference	Address	Proposed use	Capacity (number of homes)	Area (ha)
HATF2194	Land east of Yew Tree Close, Hatfield Peverel	Residential	33	1.4
HATF2318	Site at The Vineyards	Residential	190	6.6
HATR2203	Land South West of Windmill Road, West of Mount Hill, Halstead	Residential	70	3.0
KELV2208	Kings Dene at North Kelvedon	Employment & Residential	1150	573.1
KELV2209	Kings Dene at North Kelvedon	Residential	460	40.3
KELV2212	Land at Bridge Farm, Doughton Road, Kelvedon	Residential	40	2.0
KELV2214	Land to the west of St. Dominics Residential Home, London Rd, Kelvedon	Residential	50	1.6
KELV2215	Land North-East of Cranes Lane, Kelvedon	Employment	100	6.4
KELV2215	Land North-East of Cranes Lane, Kelvedon	Residential	100	6.4
KELV2217	Land on the north side of Church Hill, Kelvedon	Residential	200	8.0
KELV2218	Car Park, Deals of Kelvedon, Station Road, Kelvedon	Car Parking	20	0.6
KELV2219	Railway Garage, Station Road, Kelvedon	Car Parking	45	0.8
KELV2221	Land SE of London Road, Kelvedon	Residential, Employment and Other	10	0.4

Appendix B Habitats Sites information

Site allocation reference	Address	Proposed use	Capacity (number of homes)	Area (ha)
PANF2508	Land North-West of Panfield Lane, Braintree	Residential	100	6.9
RAYN2240	South West of Tamdown Way, Springwood Drive, Braintree	Employment	0	3.3
RIVE2249	Land North of Rickstones Road, Rivenhall	Residential	45	3.9
SIBH2517	Stablebrook, Wethersfield Road, Sible Hedingham	Residential	4	0.7
STEB2282	Blois Meadow Business Centre, Steeple Bumpstead, Haverhill	Employment	0	1.1
STEB2285	Land West of North Road, Steeple Bumpstead	Residential	10	0.6
TOPP2294	Land off Park Lane, Toppesfield, CO9 4DQ	Residential	4	0.1
TOPP2295	Adj 22 Park Lane, Toppesfield	Residential	2	0.2
WETH2297	Gray's Farm, Gray's Lane, Wethersfield	Biodiversity Net Gain	0	116.1
WITC2316	Land at Wood End Farm, Witham	Residential and Employment	78	2.7
WITN2252	Land North of Witham	Residential	65	10.4
WITN2312	Cut Throat Lane Car Park, Witham	Residential and Employment	133	0.7
WITS2515	Land North of Gershwin Boulevard Witham	Residential	32	0.9

Site allocation reference	Address	Proposed use	Capacity (number of homes)	Area (ha)
Strategic allocations				
GGHR2141/GGHR2416/COLE2100	Halstead (South)		1100	
HASA2179/GGHR2142	Halstead (North)		1630	
CRES2101	East of Braintree		1350	
KELV2208/KELV2217	Kings Dene (Large)		1123	
HATF2193/HATF2318/HATF2194	North of A12 Hatfield Peverel		9173	

Appendix C

Screening of policies and site allocations

C.1 The sections below identify the Local Plan policies and site allocations that have been screened in or out, and the reasoning behind those judgements.

C.2 Location-specific policies are assessed within the policy section and also referenced within the screening of site allocations where relevant.

Screening of policies

Policies screened out – no impact pathway

C.3 The following policies have been screened out as they will not result in new development or activities that could have a likely significant effect and/or there is no impact pathway:

- **Policy LPR 1 Spatial Strategy for Braintree District** – defines the broad spatial strategy and main areas for growth, however the development itself will be delivered as a result of other policies (e.g. LPR 3 Strategic Employment) and the plan's site allocations.
- **Policy LPR 2 Development Boundaries** – states that development will only permitted outside development boundaries where development is appropriate to the countryside; however the development itself will be delivered as a result of other policies and site allocations.
- **Policy LPR 7 Allshots Farm, Rivenhall** – sets out landscape design principles for the redevelopment of this site, but the development itself is assessed under Policies LPR 3 & 4.

- **Policy LPR 12 Primary Shopping Areas** – provides further detail on types of retail permitted but will not itself result in new development over and above that set out in LPR 11.
- **Policy LPR 13 District Centre - Great Notley** - provides further detail on types of retail permitted in Great Notley but will not itself result in new development over and above that set out in LPR 11.
- **Policy LPR 14 Braintree Village Designer Outlet Centre** – safeguards an existing retail centre; no additional development.
- **Policy LPR 15 Leisure and Entertainment** - safeguards existing leisure and entertainment sites; no additional development.
- **Policy LPR 38 Area Action Plan - Former Airbase RAF Wethersfield** – requires an area action plan for a site to identify appropriate development uses and scale, but will not itself result in new development.
- **Policy LPR 39 Affordable Housing** – defines the required proportion of affordable housing but will not itself result in new development.
- **Policy LPR 40 Affordable Housing in Rural Areas –** defines the required proportion of affordable housing but will not itself result in new development.
- **Policy LPR 43 Self and Custom Build Housing** - defines the required proportion of self builds homes but will not itself result in new development.
- **Policy LPR 45 Housing Mix and Density** - defines the required housing mix and density but will not itself result in new development.
- **Policy LPR 52 Sustainable Transport** - describes the type of transport provision appropriate for new development but will not result in new development over and above that assessed in relation to the overall quantum of development and the site allocations.
- **Policy LPR 53 Parking Provision** – requires new development to provide parking for cars and bicycles but will not itself result in new development.
- **Policy LPR 55 New Road Infrastructure** – identifies land to be safeguarded for infrastructure (e.g. as proposed in other plans), and

identifies transport proposals that are within development allocated by the plan (i.e. are assessed as part of the site allocations); no additional development proposed.

- **Policy LPR 56 Broadband** – requires new development to be served by broadband; no additional development.
- **Policy LPR 57 Built and Historic Environment –** sets out good design principles, including principles for the protection and enhancement of the historic environment; no additional development.
- **Policy LPR 58 An Inclusive Environment** – sets out principles for accessible and inclusive design; no additional development.
- **Policy LPR 59 Health and Wellbeing Impact Assessment** – requires health impact assessment; no additional development.
- **Policy LPR 60 Provision for Open Space, Sport and Recreation** – requires new development to provide new open space in line with the open spaces SPD, but will not result in new development beyond that assessed under other development policies or site allocations.
- **Policy LPR 62 Layout and Design of Development** - sets out good design principles; no additional development.
- **Policy LPR 63 Conservation Areas** - sets out principles for the protection and enhancement of the historic environment; no additional development.
- **Policy LPR 64 Shop Fronts, Fascias and Signs in Conservation Areas** - sets out good design principles; no additional development.
- **Policy LPR 65 Illuminated Signs in Conservation Areas** - sets out good design principles; no additional development.
- **Policy LPR 66 Demolition in Conservation Area** – provides protection for buildings in Conservation Areas from demolition; no additional development.
- **Policy LPR 67 Demolition of Listed Buildings or Structures** - provides protection for listed buildings or structures from demolition; no additional development.

- **Policy LPR 68 Heritage Assets and their Settings** - sets out principles for the protection and enhancement of the historic environment; no additional development.
- **Policy LPR 69 Archaeological Evaluation, Excavation and Recording** – describes the circumstances in which archaeological evaluation is required; no additional development.
- **Policy LPR 72 Cemeteries and Churchyards** – safeguards existing sites.
- **Policy LPR 73 Natural Environment and Green Infrastructure** – sets out principles for the protection of the natural environment; no development.
- **Policy LPR 74 Protected Sites** – sets out principles for the protection of the natural environment; no development.
- **Policy LPR 75 Tree Protection** – sets out principles for the protection of the natural environment; no development.
- **Policy LPR 76 Protection, Enhancement, Management and Monitoring of Biodiversity** – sets out principles for the protection of the natural environment; no development.
- **Policy LPR 77 Landscape Character and Features** – sets out principles for the protection of the landscape; no development.
- **Policy LPR 78 Green Buffers** – safeguards areas as green buffers and identifies development that would be permitted in green buffers, but will not result in development beyond that assessed in relation to other policies (e.g. replacement of existing homes).
- **Policy LPR 79 Protected Lanes** – prevents development from having an adverse effect on protected lanes; no additional development.
- **Policy LPR 80 Protecting and Enhancing Natural Resources, Minimising Pollution and Safeguarding from Hazards** – sets out principles for the protection of the natural environment; no development.

- **Policy LPR 81 Climate Change** – requires developments to mitigate and adapt to climate change but will not result in development beyond that assessed under other policies (e.g. LPR 82).
- **Policy LPR 82 Energy Generation and Efficiency** – sets out standards for energy and water efficiency but will not itself result in new development.
- **Policy LPR 84 Flooding Risk and Surface Water Drainage** – requires developments to assess and mitigate flood risk; no additional development.
- **Policy LPR 85 Surface Water Management Plan** – requires developments to have a surface water management plan; no additional development.
- **Policy LPR 86 Sustainable Urban Drainage Systems** - requires developments to have sustainable drainage systems; no additional development.
- **Policy LPR 87 External Lighting** - sets out good design principles for lighting; no additional development.
- **Policy LPR 88 Infrastructure Delivery and Impact Mitigation Policy** – describes how new infrastructure provision will be assessed and funded; no additional development.

Policies screened out – no likely significant effects

C.4 The following policies have been screened out because, although they could result in new development / activities, the changes will be small in scale and therefore will not result in likely significant effects, either alone or in combination:

- **Policy LPR 9 Rural Enterprise** – permits small scale conversion or re-use of existing buildings in rural areas.

- **Policy LPR 46 Residential Extensions, Alterations and Outbuildings** - permits small scale alterations or extensions to existing buildings.
- **Policy LPR 47 Replacement Dwellings in the Countryside** – permits the replacement of single dwellings.
- **Policy LPR 48 Rural Workers Dwellings in the Countryside** - permits new single dwellings.
- **Policy LPR 49 Infill Development in Hamlets** - permits new single dwellings.
- **Policy LPR 50 Residential Conversion of Buildings in the Countryside** - permits small scale alterations or extensions to existing buildings.
- **Policy LPR 51 Garden Extensions** - permits small scale extensions to existing gardens.

Policies screened in

C.5 The following policies have the potential for likely significant effects and have therefore been considered further in the Appropriate Assessment.

C.6 The following policies define the overall quantum and type of development associated with the Local Plan and therefore may be associated with impacts relating to an increase in resident population or visitors (recreation pressure), industry and travel (air pollution) and water abstraction/treatment:

- **Policy LPR 3 Strategic Employment** – defines the overall quantum of employment development required: 17,600sqm / 2.4ha office space and 90,000sqm / 22.5ha research & development, industrial, storage and distribution uses.
- **Policy LPR 11 Retailing and Regeneration** – defines the overall quantum of retail and leisure development: 8,321 sqm retail & food/beverage; 2,800sqm leisure & cultural. Larger scale development will be focussed on town centres (in Braintree, Witham and Halstead).

- **Policy LPR 18 Housing Provision and Delivery** – defines the overall quality of housing development: a minimum of 18,959 homes. The policy also defines the Strategic Growth Locations (SGLs; Policies LPR 19 – 28 and associated site allocations) at which 12,433 homes are intended to be delivered. 1,967 homes will be delivered at smaller non-strategic site allocations and 975 via windfall development.
- **Policy LPR 44 Gypsy and Traveller and Travelling Showpersons' Accommodation** – defines the overall requirement for 37 pitches for Gypsy and Traveller accommodation and 11 plots for Travelling Showpeople.

C.7 The following policies define other types of development, without a defined quantum of development. These may contribute to the overall increase in number of residents (air pollution, recreation pressure, water abstraction/treatment) or result in direct pollution at downstream Habitats Sites, if development is close to a watercourse. Note that location-specific impacts requiring proximity to a Habitats Site (e.g. non-physical disturbance, habitat loss) are screened out as there are no Habitats Sites or functionally linked habitats in the district:

- **Policy LPR 10 Tourist Development within the Countryside** – permits new and extended tourist accommodation and facilities in the countryside.
- **Policy LPR 61 Equestrian Facilities** – permits new or extended riding schools, stable buildings or other equestrian facilities in the countryside.
- **Policy LPR 70 Educational Establishments** – supports new or extended facilities in ‘sustainable locations’.
- **Policy LPR 71 Community Services and Facilities** – supports new or extended community facilities in unspecified locations.
- **Policy LPR 83 Renewable Energy Schemes** – permits renewable energy schemes such as wind energy and solar farms, in unspecified locations where the benefit outweighs other considerations including nature conservation and hydrological impact.

C.8 The following policies define the locations in which specific types of development would be permitted (along with the site allocations), which enables a more location-specific assessment of their contribution to air pollution and water consumption / treatment or direct pollution. Note that local effects - habitat loss, non-physical disturbance - are screened out as there no Habitats Sites or functionally linked habitats in the district:

- **Policy LPR 4 Location of Employment Land** – identifies the allocated sites at which new employment development will be permitted. The policy also safeguards existing employment sites "where they continue to offer a viable and sustainable location for such employment uses".
- **Policy LPR 5 Employment Policy Areas** – identifies areas in which employment development (offices, research & development, industrial, vehicle repair, waste management, services) will be permitted. These sites are existing employment sites in which small scale development (e.g. changes of use, replacement) would be permitted.
- **Policy LPR 8 Business Parks** - this policy is similar to LPR 5 but specifies the areas suitable for use as business parks.
- **Policy LPR 16 Retail Warehouse Development** – permits new warehouses within or immediately adjoining town centres.
- **Policy LPR 17 Retail Site Allocations** - identifies the allocated sites at which new retail development will be permitted.
- **Policy LPR 41 Specialist Housing –** this policy permits new specialist housing, e.g. for the elderly, within areas identified on the policies map and within all development boundaries. The policy also permits expansions to existing buildings, but the scale of extensions is not likely to result in significant effects.

C.9 The following policies relate to development at individual sites These will all contribute to air pollution and water consumption / treatment; and residential development (including Gypsy and Traveller sites) will contribute to recreation pressure:

- **Policy LPR 6 Kelvedon Park** - employment development specifically for emergency services, including 3.3ha extension to employment land identified in LPR4.
- **Policy LPR 19 SGL - Hayeswood, East of Great Notley, South of Braintree** – up to 1,750 homes, employment uses, education, community facilities, retail, Gypsy and Traveller site (or contribution towards one), public open space, and associated infrastructure.
- **Policy LPR 20 SGL - Land East of Broad Road, Braintree** – up to 1,000 homes, employment uses, education, retail, Gypsy and Traveller site (or contribution towards one), public open space, and associated infrastructure.
- **Policy LPR 21 SGL - Former Towerlands Park Site** – up to 575 homes, education, community facilities, retail, public open space, and associated infrastructure.
- **Policy LPR 22 SGL - Panfield Lane, North West Braintree** – up to 825 homes, employment uses, education, retail, community facilities, public open space, and associated infrastructure.
- **Policy LPR 23 SGL - East of Braintree** – c.2,500 homes, retail, health services (or contribution towards), Gypsy and Traveller site, and associated infrastructure.
- **Policy LPR 24 SGL - Land South and North-East of Halstead (Within Greenstead Green and Cole Engaine Parish)** – c.2,700 homes, road infrastructure (bypass), education, community facilities, retail, Gypsy and Traveller site, open space, and associated infrastructure.
- **Policy LPR 25 SGL - Land at South East Feering** – c.835 homes, employment uses, education, community facilities, retail, Gypsy and Traveller site (or contributions towards one), open space, and associated infrastructure.
- **Policy LPR 26 SGL Kings Dene – North, West and South West of Kelvedon** - extension to Kelvedon and Feering based on Garden Communities principles. Up to 6,000 homes, employment uses, Gypsy and Traveller site; neighbourhood centres with retail, community and health

provision; provision of or contribution towards education, community facilities; open space, and associated infrastructure.

- **Policy LPR 27 SGL - Wood End Farm, Witham** – up to 400 homes, education, community facilities, open space, and associated infrastructure.
- **Policy LPR 28 Land North of the A12, Hatfield Peverel** – c.1,100 homes, new link road, education, community facilities, open space, and associated infrastructure.
- **Policy LPR 29 Comprehensive Redevelopment Area - B&M Retail Unit, Rayne Road** – at least 35 homes, contribution to education and health facilities, open space, and associated infrastructure.
- **Policy LPR 30 Comprehensive Redevelopment Area - Land East of Halstead High Street** – could include new homes (number not specified), retail and commercial, open space and community uses.
- **Policy LPR 31 Comprehensive Redevelopment Area - Factory Lane West/Kings Road, Halstead** – employment uses, retail, residential units not on the ground floor (number not specified).
- **Policy LPR 32 Comprehensive Redevelopment Area - Coggeshall Football Club** – up to 80 new homes, contributions to education and community facilities, public open space, associated infrastructure.
- **Policy LPR 33 Comprehensive Redevelopment Area - Kings Chase, Witham** – combination of retail and residential uses (number not specified).
- **Policy LPR 34 Comprehensive Redevelopment Area - Cut Throat Lane Carpark, Witham** – new homes (number not specified), contributions to education and health facilities, public open space, and associated infrastructure.
- **Policy LPR 35 Comprehensive Redevelopment Area - Newlands Precinct, Witham** - combination of retail, employment, leisure, community facilities, car parking and residential uses (number not specified).
- **Policy LPR 36 Comprehensive Redevelopment Area - Rickstones Neighbourhood Centre, Witham** - could include retail, community uses, public house, pavilion and residential development (number not specified).

- **Policy LPR 37 Land on the East Side of the A131 High Garrett** – residential development (at least 10 homes), road improvements and retail. Site allocation BOCN2033.
- **Policy LPR 42 Specialist Housing – Mount Hill, Halstead** – 16 units for people with physical / learning disabilities.
- **Policy LPR 54 Transport Related Policy Areas** – this policy identifies two areas in which development appropriate to roadside locations (e.g. overnight accommodation, fuel stations, garden centres) would be permitted: Galley's Corner, Cressing; and East of Panners roundabout between Braintree and Great Notley.
- **Policy LPR 70 Educational Establishments** – identifies a site for new educational facilities (Land at Ravens Avenue, Halstead) and supports new or extended facilities in other 'sustainable locations' (see below).
- **Policy LPR 71 Community Services and Facilities** – identifies a site for new community facilities (Butler Road, Halstead) and supports new or extended facilities in other locations (see below).

Policies providing mitigation

C.10 The main policies providing general protection for Habitats Sites are Policies LPR 73 and LPR 73, quoted in full below:

Policy LPR 73 Natural Environment and Green Infrastructure

Development proposals must take available measures to ensure the protection and enhancement of the natural environment, habitats, biodiversity and geodiversity of the District and to be acceptable, also taking climate change and water scarcity into account in their design. This will include protection from pollution. Proposals inside the District which are likely to adversely affect, either individually or cumulatively, International or

Nationally designated nature conservation sites within and outside the District will not normally be acceptable.

The Council will expect all development proposals, where appropriate, to contribute towards the delivery of new Green Infrastructure which develops and enhances a network of multi-functional spaces and natural features throughout the District. This will be proportionate to the scale of the proposed development and the rural or urban context. The Council will support and encourage development which contributes to the District's existing Green Infrastructure and where possible, enhances and protects networks and adds to their functions. It will secure additional provision where deficiencies have been identified. Open space and green infrastructure may in some instances be required to provide alternatives to European sites and that such sites should be designed and managed appropriately to maximise their potential effectiveness in this role. Proposals which undermine these principles will not be acceptable

Policy LPR 74 – Protected Sites

International Designations

Sites designated for their international importance to nature conservation; including Ramsar sites, Special Protection Areas (SPA), Special Areas of Conservation (SAC), should be protected from development likely to have an adverse effect on their integrity whether they are inside or outside the District.

Proposals which are considered to have a likely significant effect on these sites will require an Appropriate Assessment (AA) in line with European and domestic legislation. Developers should provide information sufficient to inform this assessment. Planning permission will only be granted if, in light of the AA, it can be ascertained that the development would not adversely

affect the integrity of these sites or, if there are no alternative solutions, imperative reasons of overriding public interest can be demonstrated.

In accordance with the Habitats Regulations, development proposals should follow the avoid-mitigate-compensate hierarchy. Where this cannot be achieved, development proposals will not be permitted.

Residential developments must contribute to the Essex Coast Recreational Disturbance Avoidance and Mitigation Strategy 2018-2038 (RAMS) where they fall within the Zones of Influence of international designations as defined in the RAMS.

Larger site allocations will be required to provide sufficient greenspace to mitigate alone impacts on Essex Coast Habitat Sites

Nationally Designated sites

Sites designated for their national importance to nature conservation; including Sites of Special Scientific Interest (SSSIs) should also be protected from development which is likely to adversely affect the features for which they are designated. Where necessary, developers should therefore ensure that sufficient assessment of potential impacts to SSSIs is also submitted with any planning application.

Locally Designated sites

Proposals likely to have an adverse effect on a Local Wildlife Site (LWS), Local Nature Reserve (LNR) and Special Roadside Verge will not be permitted unless the benefits of the development clearly outweigh the harm to the nature conservation value of the site. If such benefits exist, the developer will be required to demonstrate that impacts will be avoided, and impacts that cannot be avoided will be mitigated on-site.

Protected Species, Priority Species and Priority Habitat

Proposals that result in a net gain in priority habitat will be supported in principle, subject to other policies in this plan. Where priority habitats are likely to be adversely impacted by the proposal, the developer must demonstrate that adverse impacts will be avoided, and impacts that cannot be avoided are mitigated on-site. Where residual impacts remain, off-site compensation will be required so that there is no net loss in quantity and quality of priority habitat in Braintree District.

Where there is a confirmed presence or reasonable likelihood of protected species or priority species being present on or immediately adjacent to a development site, the developer will be required to undertake an ecological survey and will be required to demonstrate that an adequate mitigation plan is in place to ensure no harm to protected species and no net loss of priority species.

Proposals resulting in the loss, deterioration or fragmentation of irreplaceable habitats such as ancient woodland or veteran trees will not normally be acceptable unless the need for, and benefits of the development in that location clearly outweigh the loss.

All development proposals

In all cases a precautionary approach will be taken where insufficient information is provided about avoidance, management, mitigation and compensation measures. Management, mitigation and compensation measures will be secured through planning conditions/obligations where necessary.

C.11 The following policies include additional measures that could contribute to mitigation for other policies within the Local Plan:

- **Policy LPR 52 Sustainable Transport** – requires new development to provide facilities for sustainable transport. This could reduce air pollution impacts associated with travel.
- **Policy LPR 53 Parking Provision** – requires new development to provide parking for bicycles. This could reduce air pollution impacts associated with travel.
- **Policy LPR 60 Provision for Open Space, Sport and Recreation** – requires new development to provide new open space in line with the open spaces SPD. This could reduce recreation pressure impacts by providing alternative spaces for recreation.
- **Policy LPR 62 Layout and Design of Development** – requires development to incorporate environmental sustainability including water efficiency, which could reduce demand for water and impacts associated with abstraction. It also requires lighting proposals to avoid or minimise light glare/spill/pollution on nature conservation, which could reduce lighting impacts (non-physical disturbance).
- **Policy LPR 75 Tree Protection** – sets out measures for the protection of trees. This could reduce risks of habitat loss.
- **Policy LPR 76 Protection, Enhancement, Management and Monitoring of Biodiversity** – requires developments to "provide for the protection of biodiversity and the mitigation or compensation of any adverse impacts". This will contribute to the general protection of habitats.
- **Policy LPR 77 Landscape Character and Features** – encourages proposals to maximise opportunities for the creation of new green infrastructure and green infrastructure networks. This could reduce recreation pressure impacts.
- **Policy LPR 80 Protecting and Enhancing Natural Resources, Minimising Pollution and Safeguarding from Hazards** – states that new developments should prevent unacceptable risks from all emissions and other forms of pollution (including light and noise pollution), and ensure no deterioration to air or water quality (surface & ground water and soils). This will reduce risks associated with industrial air pollution, direct pollution to water, and non-physical disturbance (light & noise).

- **Policy LPR 82 Energy Generation and Efficiency –** sets a water efficiency standard of 110 litres/person/day (and BREEAM Very Good), which will reduce demand for water and impacts associated with abstraction.
- **Policy LPR 85 Surface Water Management Plan** – requires sustainable drainage (SuDS) within all developments (except minor housing extensions) in Critical Drainage Areas, which could contribute to a reduction in impacts associated with wastewater treatments or direct pollution.
- **Policy LPR 86 Sustainable Urban Drainage Systems** - requires all development of 10 dwellings or more and major commercial development, car parks and hard standings to incorporate SuDS; unless there is, for example, significant risk of pollution to the water environment. This could contribute to a reduction in impacts associated with wastewater treatments or direct pollution.
- **Policy LPR 87 External Lighting** – external lighting must minimise spillage, glare and glow, and there should be no harm to biodiversity or natural ecosystems. This will reduce the risk of light impacts (non-physical disturbance).
- **Policy LPR 88 Infrastructure delivery and impact mitigation policy** – requires developments to demonstrate sufficient infrastructure capacity or deliver it via the proposal. Where additional infrastructure capacity is required, mitigation measure must be agreed with the Council and infrastructure provided and could include financial contributions to new/expanded infrastructure or on/off site provision. This would contribute to mitigation for impacts associated with wastewater treatment or abstraction.

C.12 The following policies also provide site specific mitigation for impacts relevant to the HRA:

- **Policy LPR7 Allshots Farm, Rivenhall** – requires an external lighting scheme to demonstrate that the site will not cause unnecessary light pollution. This could reduce the risk of non-physical disturbance.

- **Policies LPR 19, 20, 21, 22, 24, 25, 26, 27, 28, 29, 32, 34** – strategic growth locations and comprehensive redevelopment areas that have a requirement for new open space. This could reduce recreation pressure impacts.
- **Policies LPR 19, 22, 23, 24, 25, 26, 27, 28, 29, 32, 33, 34** – strategic growth locations, comprehensive redevelopment areas that have a requirement for new/enhanced sustainable transport provision including new walking and cycling routes. This could reduce air pollution impacts from traffic.

Screening of site allocations

Table C.2: Screening of site allocations

Impact pathway	Screening criteria ('there could be likely significant effects if…')	Site allocations meeting the criteria
Physical damage and loss of habitat	Development is within or immediately adjacent to a Habitats Site.	None
Non-physical disturbance	Development is 500m or less from a Habitats Site.	None
Air pollution	Development increases traffic on roads within 200m of a Habitats Site.	All site allocations, but more likely if the development is in the South of the district (e.g. Witham)
Recreation pressure	Residential development is within: 13km from Abberton Reservoir SPA/Ramsar 22km from Blackwater Estuary (Mid Essex Coast Phase 4) SPA/Ramsar	Within 13km of Abberton (e.g. Coggeshall, Kelvedon, Witham east): ■ COGG2084, COGG2085, KELV2208, KELV2209, KELV2212, KELV2214, KELV2215, KELV2217, KELV2221, RIVE2249,

Impact pathway	Screening criteria ('there could be likely significant effects if…')	Site allocations meeting the criteria
	20.8km from Dengie (Mid Essex Coast Phase 1) SPA/Ramsar	WITN2252, WITN2312, WITS2515. Within 22km of Blackwater (e.g. Coggeshall, Kelvedon, Witham, Hatfield Peverel, Bradwell, Cressing, Black Notley, Braintree south): ■ BCBG2010, BCBG2500, BLAN2019, BLAN2027, BOCN2032, BOCN2033, BOCN2042, BURE2070, COGG2084, COGG2085, CRES2101CRES2102, GGHR2141, GGHR2143, GGHR2146, GNBN2154, HASA2179, HASA2180, HATF2185, HATF2192, HATF2193, HATF2194, HATF2318, HATR2203, KELV2208, KELV2209, KELV2212, KELV2214, KELV2215, KELV2217, KELV2221, PANF2508, RIVE2249, WITC2316, WITN2252, WITN2312, WITS2515. Within 20.8km of Dengie (e.g. Coggeshall, Kelvedon, Witham, Hatfield Peverel): ■ COGG2084, COGG2085, HATF2185, HATF2193, KELV2208, KELV2209, KELV2212, KELV2214, KELV2215, KELV2217, KELV2221, RIVE2249, WITC2316, WITN2252, WITN2312, WITS2515.
Water – direct pollution	Development is within 500m or upstream of a Habitats Site, i.e. adjacent to one of the	No site allocations within 500m of a Habitats Site.

Impact pathway	Screening criteria ('there could be likely significant effects if…')	Site allocations meeting the criteria
	following rivers or their tributaries: - River Stour - River Colne - River Blackwater - River Brain - River Ter	River Stour: no adjacent site allocations. River Colne: GGHR2416, GGHR2141, GRYE2176. River Blackwater: KELV2221, KELV2214, KELV2208, COGG2085, BOCN2042. River Brain: no adjacent site allocation. River Ter: no adjacent site allocation.
Water – abstraction	Development increases demand for water.	All site allocations.
Water – wastewater treatment	Development utilises WRCs that discharge into the following rivers or their tributaries: - River Stour - River Colne - River Blackwater - River Brain - River Ter	All site allocations.

References and endnotes

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

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

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 https://www.gov.uk/guidance/appropriate-assessment

5 Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (the 'Habitats Directive')

6 Directive 2009/147/EC of 30 November 2009 on the conservation of wild birds (the 'Birds Directive')

7 The network of protected areas identified by the EU: https://ec.europa.eu/environment/nature/natura2000/index_en.htm

8 Defra (2021) Changes to the Habitats Regulations 2017, https://www.gov.uk/government/publications/changes-to-the-habitats-regulations-2017/changes-to-the-habitats-regulations-2017

9 Defra and Natural England (2021) Guidance - Habitats regulations assessments: protecting a European site, https://www.gov.uk/guidance/habitats-regulations-assessments-protecting-a-european-site

10 NPPF para 194, https://www.gov.uk/guidance/national-planning-policy-framework

11 The HRA Handbook, Section A3. David Tyldesley & Associates, a subscription based online guidance document, https://www.dtapublications.co.uk/handbook/European

12 LUC (2020) HRA Report for North Essex Authorities Shared Strategic Section 1 Local Plan – update following proposed main modifications, August 2020, https://www.braintree.gov.uk/downloads/file/3283/eb083a-hra-north-essex-authorities-shared-strategic-section-1-local-plan-update-following-proposed-main-mods-aug-2020

13 LUC (2017) HRA Report for Section 2 of the Braintree Publication Draft Local Plan, https://www.braintree.gov.uk/directory-record/1058429/bdc027-habitats-regulation-assessment-section-2-may-2017

14 Regulation 5 of the Habitats Regulations 2017.

15 UK Government Planning Practice Guidance: https://www.gov.uk/guidance/appropriate-assessment

16 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.

17 The HRA Handbook. David Tyldesley & Associates, a subscription based online guidance document, see Reference 11.

18 Conservation objectives are published by Natural England for SACs and SPAs: http://publications.naturalengland.org.uk/category/6490068894089216

19 In line with the CJEU judgment in Case C-323/17 People Over Wind v Coillte Teoranta, mitigation must only be taken into consideration at this stage and not during Stage 1: HRA Screening.

20 In addition to European site citations and conservation objectives, key information sources for understanding factors contributing to the integrity of European sites include (where available) conservation objectives supplementary advice and Site Improvement Plans prepared by Natural England: http://publications.naturalengland.org.uk/category/5458594975711232

21 Chapman, C. & Tyldesley, D. 2016. Functional linkage: How areas that are functionally linked to European sites have been considered when they

may be affected by plans and projects - a review of authoritative decisions. Natural England Commissioned Reports, Number 207

22 Obtained from the Natural England website: http://www.naturalengland.org.uk/

23 Obtained from Natural England website, as above

24 SI No. 2017/2012

25 ECJ Case C-127/02 “Waddenzee" Jan 2004

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

27 The HRA Handbook. David Tyldesley & Associates, a subscription based online guidance document, see Reference 11.

28 ibid

29 LUC (2025) Colchester City Council Regulation 18 Local Plan Habitats Regulations Assessment, https://cbccrmdata.blob.core.windows.net/noteattachment/CBC-Evidence-base-and-supporting-documents-Habitat-Regulations-Assessment-CCC%20Regulation%2018%20Local%20Plan%20HRA_Final%20Issue_12.02.25_compressed%20(1).pdf

30 As referenced in the Institute of Air Quality Management guidance Guidance on the Assessment of Mineral Dust Impacts for Planning (2016), https://iaqm.co.uk/text/guidance/mineralsguidance_2016.pdf

31 JNCC (2021) Guidance on decision making thresholds for air pollution, https://hub.jncc.gov.uk/assets/6cce4f2e-e481-4ec2-b369-2b4026c88447

32 Standards for Highways (2019). Design Manual for Roads and Bridges: LA105 Air Quality, https://www.standardsforhighways.co.uk/tses/attachments/10191621-07df-44a3-892e-c1d5c7a28d90

33 Air Pollution Information System, https://www.apis.ac.uk/app

34 Environment Agency & Defra (2016) Guidance - Air emissions risk assessment for your environmental permit

https://www.gov.uk/guidance/air-emissions-risk-assessment-for-your-environmental-permit#screening-for-protected-conservation-areas

35 LUC (2018) HRA of Tendring District Local Plan Publication Draft - Section 2 https://legacy.tendringdc.gov.uk/sites/default/files/documents/planning/Planning_Policy/S2Examination/Evidence/CD6.1%20HRA%20of%20Tendring%20Draft%20Publication%20Local%20Plan%20Part%202%202018.pdf

36 Footprint Ecology (2025) West Suffolk Recreational Disturbance Avoidance and Mitigation Study, https://www.westsuffolk.gov.uk/planning/upload/West-Suffolk-Recreational-Disturbance-Avoidance-and-Mitigation-Study-June-2025.pdf

37 Southwest Environmental Ltd (2026) Anglian Water Sewage Treatment Works Maps https://www.southwest-environmental.co.uk/further%20info/in%20depth/sewage_works_maps/anglian_water_sewage_treatment_works_location_maps.html

38 National Highways (2024) DMRB LA105 Air Quality, https://www.standardsforhighways.co.uk/search/af7f4cda-08f7-4f16-a89f-e30da703f3f4

39 IAQM (2020) A guide to the assessment of air quality impacts on designated nature conservation sites https://iaqm.co.uk/text/guidance/air-quality-impacts-on-nature-sites-2020.pdf

40 Natural England (2025) Guidance - Air pollution and development: advice for local authorities https://www.gov.uk/guidance/air-pollution-and-development-advice-for-local-authorities

41 Environment Agency & Defra (2025) Guidance - Control and monitor emissions for your environmental permit, https://www.gov.uk/guidance/control-and-monitor-emissions-for-your-environmental-permit

42 Environment Agency & Defra (2025) Guidance - Risk assessments for your environmental permit, https://www.gov.uk/guidance/risk-assessments-for-your-environmental-permit

43 The Town and Country Planning (Environmental Impact Assessment) Regulations 2017, UK Statutory Instruments 2017 No. 571, Schedule 2 https://www.legislation.gov.uk/uksi/2017/571/schedule/2

44 Anglian Water (2019) Water Resources Management Plan 2019, https://www.anglianwater.co.uk/corporate/strategies-and-plans/water-resources-management-plan/wrmp19

45 Anglian Water (2024) Water Resources Management Plan 2024, https://www.anglianwater.co.uk/corporate/strategies-and-plans/water-resources-management-plan

46 Anglian Water (2022) Drought Plan 2022, https://www.anglianwater.co.uk/corporate/strategies-and-plans/drought-plan

47 Anglian Water (2023) Drainage and Wastewater Management Plan, https://www.anglianwater.co.uk/corporate/strategies-and-plans/drainage-wastewater-management-plan

48 Arcadis (2026) Braintree District Council Water Cycle Study – Outline Water Cycle Study, February 2026, https://www.braintree.gov.uk/downloads/file/4370/rebn002-water-cycle-study-draft-february-2026

Report produced by LUC

Bristol
12th Floor, Beacon Tower, Colston Street, Bristol BS1 4XE
0117 389 0700
bristol@landuse.co.uk

Cardiff
Room 1.12, 1st Floor, Brunel House, 2 Fitzalan Rd, Cardiff CF24 0EB
0292 254 0920
cardiff@landuse.co.uk

Edinburgh
Atholl Exchange, 6 Canning Street, Edinburgh EH3 8EG
0131 326 0900
edinburgh@landuse.co.uk

Glasgow
37 Otago Street, Glasgow G12 8JJ
0141 403 0900
glasgow@landuse.co.uk

London
250 Waterloo Road, London SE1 8RD
020 7199 5801
london@landuse.co.uk

Manchester
4th Floor, 57 Hilton Street, Manchester M1 2EJ
0161 802 2800
manchester@landuse.co.uk

Sheffield
32 Eyre Street, Sheffield, S1 4QZ
0114 392 2366
sheffield@landuse.co.uk

landuse.co.uk