



Habitats Regulations Assessment of the Forest Heath area Single Issue Review of Core Strategy Policy CS7 Overall Housing Provision and Distribution

Prepared by LUC
September 2019

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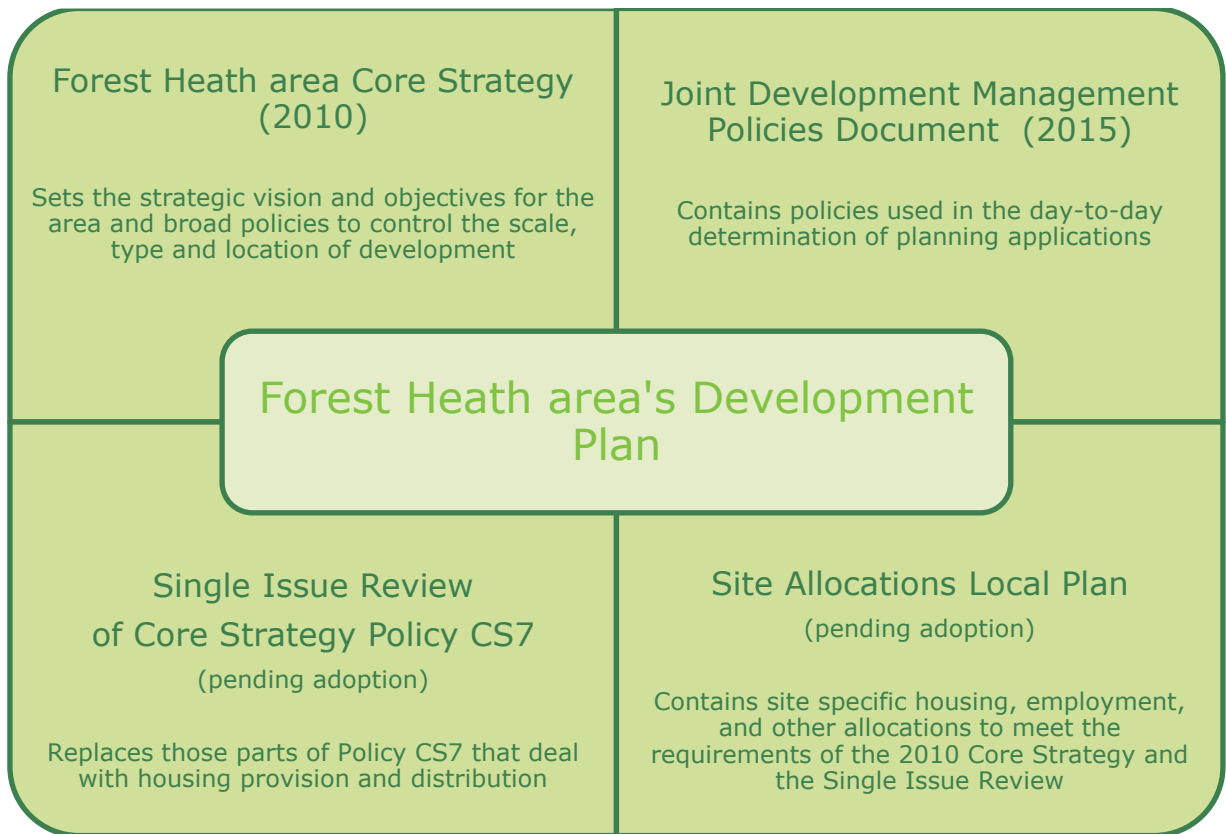
1 Introduction

- 1.1 LUC was contracted by AECOM on behalf of the former Forest Heath District Council to carry out the Habitats Regulations Assessment (HRA) of the Forest Heath area Single Issue Review (SIR) of Core Strategy Policy CS7 Overall Housing Provision and Distribution. This report documents the results of the HRA of the version of the SIR that is proposed to be adopted by the Council. As such, it takes into account modifications to the Proposed Submission version of the SALP that were proposed during Examination of the SIR and reflects recent HRA-related judgments made by the Court of Justice for the European Union (CJEU).

Background to the Forest Heath area SIR and SALP

- 1.2 The Core Strategy is the strategic document which provides an overall vision and framework for the growth of Forest Heath area, underpinned by the principle of sustainability. It was adopted in May 2010 and is part of Forest Heath area's Development Plan, a suite of planning documents that will (once fully adopted) replace the Council's Local Plan (1995) saved policies, in accordance with the National Planning Policy Framework (NPPF).
- 1.3 The SIR of Core Strategy Policy CS7 (the policy that set out the amount and distribution of housing that was planned for the area to 2031) was prompted by a successful High Court challenge that resulted in the majority of Policy CS7 and elements of CS1, CS13 and para 3.12.2 being revoked from the Adopted Core Strategy. The SIR will replace Core Strategy Policy CS7 in its entirety; no changes to Policies CS1, CS13 or paragraph 3.12.1 are required. When considered against national policy, the remaining parts of the 2010 Core Strategy still provide an appropriate strategy for the area to the 2031 and are therefore not part of the review of the Local Plan.
- 1.4 The former Forest Heath District Council and the former St Edmundsbury Borough Council, working together as West Suffolk, produced a Joint Development Management Policies Document that was adopted in 2015. This document provides policies that guide and inform development proposals in both authorities' areas.
- 1.5 The SIR has been prepared in parallel with the Site Allocations Local Plan (SALP). Once the SIR and SALP are adopted, Forest Heath area's Development Plan will therefore comprise the documents set out in Figure 1.1.

Figure 1.1 Forest Heath area's Development Plan



The need for HRA

- 1.6 The requirement to undertake HRA of land use plans, including local development documents¹, was confirmed by the amendments to the Habitats Regulations published for England and Wales in 2007 (1); the currently applicable version of the Habitats Regulations came into force in November 2017 (2). When preparing its Local Plan, FHDC is therefore required by law to carry out an HRA. FHDC can commission consultants undertake HRA work on its behalf (which is documented in this report). As the competent authority, FHDC will consider this work and may only progress the Local Plan if it considers that the Plan will not adversely affect the integrity of any European site. The requirement for authorities to comply with the Habitats Regulations when preparing a Local Plan is also noted in the Government's online planning practice guidance.
- 1.7 HRA refers to the assessment of the potential effects of a development plan on one or more European sites, including Special Areas of Conservation (SACs) and Special Protection Areas (SPAs):
- SACs are designated under the European Habitats Directive (3) and target particular habitat types (Annex 1) 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.
 - SPAs are classified in accordance with Article 4(1) of the European Union Birds Directive for rare and vulnerable birds (as listed in Annex I of the Directive), and under Article 4(2) for regularly occurring migratory species not listed in Annex I.

¹ Including a local development document as provided for in Part 2 of the 2004 Planning Act (local development) other than a statement of community involvement

- 1.8 Candidate SACs (cSACs)², Potential SPAs (pSPAs)³, Sites of Community Importance (SCIs)⁴ and Ramsar sites should also be included in the assessment.
- Ramsar sites support internationally important wetland habitats and are listed under the Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar Convention, 1971).
- 1.9 For ease of reference during HRA, these designations can be collectively referred to as European sites⁵ despite Ramsar designations being at the international level.

Stages of HRA

- 1.10 The HRA of development plans is undertaken in stages (as described below) and should conclude whether or not a proposal would adversely affect the integrity of the European site in question.
- 1.11 The HRA should be undertaken by the 'competent authority', in this case the former Forest Heath District Council, and LUC has been commissioned by AECOM to carry out HRA work on the Council's behalf, although this is to be reported to and considered by FHDC, as the competent authority, before adopting the Local Plan. The HRA also requires close working with Natural England as the statutory nature conservation body⁶ in order to obtain the necessary information, agree the process, outcomes and mitigation proposals. The Environment Agency, while not a statutory consultee for the HRA, is also in a strong position to provide advice and information throughout the process as it is required to undertake HRA for its existing licences and future licensing of activities.

Requirements of the Habitats Regulations

- 1.12 In assessing the effects of a Local Plan in accordance with Regulation 105 of the Conservation of Habitats and Species Regulations 2017(as amended), there are potentially two tests to be applied by the competent authority: a 'Significance Test', followed if necessary by an Appropriate Assessment which would inform the 'Integrity Test'. The relevant sequence of questions is as follows:
- 1.13 Step 1: Under Reg. 105(1)(b), consider whether the plan is directly connected with or necessary to the management of the sites. If not, as is the case for the Forest Heath area SIR and SALP, proceed to Step 2.
- 1.14 Step 2: Under Reg. 105(1)(a) consider whether the plan is likely to have a significant effect on a European site, either alone or in combination with other plans or projects (the 'Significance Test'). If yes, proceed to Step 3.

[Steps 1 and 2 are undertaken as part of Stage 1: HRA screening in Table 1.1.]

- 1.15 Step 3: Under Reg. 105(1), make an Appropriate Assessment of the implications for the European site in view of its current conservation objectives (the 'Integrity Test'). In so doing, it is mandatory under Reg. 105(2) to consult Natural England, and optional under Reg. 105(3) to take the opinion of the general public.

[This step is undertaken during Stage 2: Appropriate Assessment shown in Table 1.1.]

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

² Candidate SACs are sites that have been submitted to the European Commission, but not yet formally adopted, as listed on the JNCC's [SAC list](#).

³ Potential SPAs are sites that have been approved by the Minister for formal consultation but not yet proposed to the European Commission, as listed on the [GOV.UK website](#).

⁴ SCIs are sites that have been adopted by the European Commission but not yet formally designated as SACs by the UK Government.

⁵ The term 'Natura 2000 sites' can also be used interchangeably with 'European sites' in the context of HRA, although the latter term is used throughout this report.

⁶ Regulation 5 of the Habitats Regulations 2017.

- 1.17 Step 5: Under Reg. 107, if Step 4 is unable to rule out adverse effects on the integrity of a European site and no alternative solutions exist then the competent authority may nevertheless agree to the plan or project if it must be carried out for 'imperative reasons of overriding public interest' (IROPI).

Typical stages

- 1.18 Table 1.1 summarises the stages and associated tasks and outcomes typically involved in carrying out a full HRA, based on various guidance documents (4) (5) (6).

Table 1.1 Stages of HRA

Stage	Task	Outcome
Stage 1: HRA screening	Description of the development plan and confirmation that it is not directly connected with or necessary to the management of European sites. Identification of potentially affected European sites and factors contributing to their integrity. Review of other plans and projects to identify potential effects in combination. 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 ⁷ .	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)	Information gathering (development plan and European Sites). Impact prediction. Evaluation of development plan impacts in view of conservation objectives. Where impacts are considered to affect qualifying features, identify how these effects will be avoided or reduced ('mitigation').	Appropriate assessment report describing the plan, European site baseline conditions, the adverse effects of the plan on the European site, how these effects will be avoided or reduced, including the mechanisms and timescale for these mitigation measures. If effects remain after all alternatives and mitigation measures have been considered proceed to Stage 3.
Stage 3: Assessment where no alternatives exist and adverse impacts remain taking into account mitigation	Identify 'imperative reasons of overriding public interest' (IROPI). Demonstrate no alternatives exist. Identify potential compensatory measures.	This stage should be avoided if at all possible. The test of IROPI and the requirements for compensation are extremely onerous.

- 1.19 It is normally anticipated that an emphasis on Stages 1 and 2 of this process will, through a series of iterations, help to 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 both the Government and European Commission.

Recent case law changes

- 1.1 This HRA has been prepared in accordance with recent case law findings, including most notably the 2018 'People over Wind' and 'Holohan' rulings from the Court of Justice for the European Union (CJEU), relevant elements of which are outlined below."
- 1.2 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:

⁷ 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.

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

- 1.3 In line with this judgement, the HRA screening stage for the Forest Heath area SIR does not rely on avoidance or mitigation measures to draw conclusions as to whether the Local Plan could result in likely significant effects on European sites, with any such measures being considered at the Appropriate Assessment stage as relevant.
- 1.4 The *Holohan v An Bord Pleanala* (November 2018) judgment stated, amongst other things, 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."
- 1.5 The HRA of the Forest Heath area SIR has described the non-qualifying habitats and species on which the qualifying features depend (see Appendix 2). In line with this judgement, the HRA has considered the potential for effects on habitats and species present on European sites, including those not listed as qualifying features, to result in secondary effects on the qualifying features of European sites, including the potential for complex interactions and dependencies. In addition, the HRA has considered the potential for effects on habitats and species located beyond the boundaries of European sites which may be important in supporting the ecological processes of the qualifying features, for example effects on land outside the boundary of Breckland SPA that provides nesting habitat for the stone curlew population of the SPA.
- 1.6 The *Edel Grace and Peter Sweetman v An Bord Pleanala* (July 2018) judgement, relating to whether a dynamic habitat management plan can be considered as mitigation, rather than compensation, is also noted. The judgement makes clear that only measures to avoid harm should be considered as mitigation, and measures to compensate for loss elsewhere should be considered as compensation (and therefore should only be permitted where there are Imperative Reasons of Overriding Public Interest for the development).
- 1.7 The precise wording of the ruling is as follows:
- 1.8 *"It is only when it 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, that such a measure may be taken into consideration when the appropriate assessment is carried out..."*
- 1.9 *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..."*
- 1.10 In line with this judgment, the HRA of the Forest Health SALP does not take any compensatory measures into account in the appropriate assessment.

HRA work carried out previously

- 1.11 The issues surrounding the potential effects of development in the Forest Heath area and neighbouring districts on European sites have been heavily studied and these studies have informed an extensive body of previous HRA work including the HRA of the Forest Heath Core Strategy (7). That HRA was subject to extensive consultation with Natural England and other stakeholders (notably the RSPB) in order to reach agreement on a suitable approach. We have taken this previous body of work as the starting point in formulating the assumptions to be made in carrying out the HRA of the SIR. We have also reviewed changes in case law (see above) and further relevant information that has been published since that HRA was carried out and

considered, in consultation with Natural England, whether this suggests a need to amend the previously adopted approach.

- 1.12 HRA reports were produced to accompany the August-October 2015 consultation on the 'Issues and Options' version of the SIR, the April-July 2016 consultation on the 'Preferred Options' version, the January-March 2017 consultation on the 'Proposed Submission' version, which included a separate air quality report (February 2017), and the April-June 2018 consultation on the proposed Main Modifications (following Examination hearings in October 2017), which included an updated air quality report (April 2018) redrafted to take account of the *Wealden DC* High Court judgement of 20 March 2017. An addendum to the HRAs for both the SIR and the SALP was produced in June 2018. The purpose of this addendum was to review the HRAs in light of the *People over Wind, Peter Sweetman v Coillte Teoranta* CJEU judgement of April 2018. In May-June 2019, consultation took place on a revised HRA for the SALP (dated April 2019) that addressed issues of legal compliance and soundness, as a consequence of recent rulings from the CJEU. A number of consultation comments were received on the HRA during each of these stages of consultation and these are documented in Appendix 3, along with responses to them.
- 1.13 The main changes to the HRA since the Main Modifications (April 2018) version are summarised in Table 1.2.

Table 1.2 Main changes to HRA of SIR vs. Main Modifications version dated 17/4/2018

Summary of change	Reason for change
HRA Screening methodology (previously Chapter 3) is replaced with a new HRA methodology Chapter 3.	This chapter has been written to explain the methodology of the HRA as a whole and to reflect a revised approach to screening in line with the <i>People over Wind</i> case.
Integration of the information previously in the following sections into the new report format. The information is re-arranged under the relevant 'Effect' headings (Chapter 5): <ul style="list-style-type: none"> Information used and assumptions made in the HRA (previously Chapter 4). HRA Screening of overall housing provision (previously Chapter 5). HRA Screening of broad distribution of housing (previously Chapter 6). 	The information in these sections is now contained in the Appropriate Assessment chapter (Chapter 5) to reflect a revised approach to screening in line with the <i>People over Wind</i> case.
Inclusion of new Chapter 4, 'HRA screening' chapter.	The approach to screening has been revised in line with the <i>People over Wind</i> case.
Appropriate Assessment of 'Recreation pressure', the approach to which was revised through the June 2018 Addendum to the HRA,s, included in Chapter 5. This takes into account modifications to relevant site allocation policies.	The approach to assessment of this 'Effect' has been revised in line with the <i>People over Wind</i> case.
Added description of the non-qualifying habitats and species on which the qualifying features of European sites depend to Appendix 2 (fifth column of table).	To make more explicit that the HRA has considered effects on non-qualifying habitats and species where these are liable to affect conservation objectives of European sites, in line with the <i>Holohan</i> case.
Update of other relevant plans and projects in Appendix 1 and reliance on the conclusions of HRA's of these plans removed.	To recognise where progress on these has changed since the previous iteration of HRA and to avoid relying on conclusions reached by HRAs that are not in conformity with recent CJEU judgments.
Added consultation comments on April 2018 HRA of proposed Main Modifications to Appendix 3 and responses to these.	A further round of consultation has been undertaken since the last HRA report was published.
Amended terminology for Forest Heath District and Forest Heath District Council.	To reflect that Forest Heath District Council and St Edmundsbury Borough Council no longer exist, having been replaced by a single district council called West Suffolk Council.
Added consultation comments on April 2019 HRA to Appendix 3 and responses to these.	To document May-June 2019 consultation on a revised HRA and SA Addendum for the SIR that addressed issues of legal compliance and soundness, as a consequence of recent rulings from CJEU.

Structure of the HRA report

- 1.14 This chapter has introduced the background to the production of the Forest Heath area SIR and the requirement to undertake HRA. The remainder of the report is structured as follows:
- Chapter 2 The Single Issue Review (SIR) of Core Strategy Policy CS7** summarises the content of the SIR document which is the subject of this HRA report.
 - Chapter 3 HRA Methodology** outlines the approach to identifying likely significant effects and adverse effects on integrity, identifies the European sites potentially affected by the SIR (detailed information is provided in Appendix 2) and considers the other plans and projects with which the SIR could act in combination to have a significant effect on a European site (detailed in Appendix 1).
 - Chapter 4 HRA screening** considers whether the SIR is likely to have significant effects on any European site.

- **Chapter 5 Appropriate Assessment** considers whether the SIR could have an adverse effect on the integrity of a European site, either alone or in combination with other plans or projects.
- **Chapter 6 Conclusions** sets out the overall conclusion of the HRA of the SIR.

2 The Single Issue Review (SIR) of Core Strategy Policy CS7

- 2.1 The SIR document that is the subject of this HRA Report contains a single policy, CS7 Overall housing provision and distribution, which will replace the corresponding policy in the adopted Core Strategy. The policy is reproduced in full below for ease of reference.

Policy CS7 Overall housing provision and distribution <u>Provision</u> <p>To meet Forest Heath area's full and objectively assessed need for housing, provision is made for at least 6800 new dwellings (net) and associated infrastructure to be delivered in the period 2011 to 2031.</p> <u>Broad Distribution</u> <p>Development will be brought forward in line with the broad distribution of housing as set out below:</p>			
Settlement	Existing completions and commitments (2011-2017)	Additional provision	Totals
Brandon	103	33	136
Mildenhall	193	1406	1599
Newmarket	386	704	1090
Lakenheath	105	663	768
Red Lodge	1081	705	1786
Primary Villages	1129	357	1486
Other*	181	-	181
Windfall	-	225	225
TOTALS	3178	4093	7271
<p>*Other includes completions and commitments within rural areas, secondary villages and small settlements.</p> <p>To deliver the broad distribution outlined above, sites will be identified through the Site Allocations Local Plan and/or neighbourhood plans.</p>			

- 2.2 The Council committed to commencing a review of the Plan in 2018, which will include a review of the spatial strategy, including settlement boundaries, to take account of any change in circumstances.

3 HRA Methodology

HRA screening

- 3.1 The Habitats Regulations do not prescribe a particular methodology for carrying out the appraisal of a land use plan (including local development documents), or how to report the outcome. The Habitats Regulations require an appropriate assessment for any land use plan which:

"(a) is likely to have a significant effect on a European site or a European offshore marine site (either alone or in combination with other plans or projects), and

(b) is not directly connected with or necessary to the management of that site," [Reg. 105(1)]

- 3.2 An initial stage of HRA generally referred to as 'HRA screening' is usually undertaken in order to apply tests (a) and (b) and hence determine whether an 'appropriate assessment' is required. The HRA screening is set out in Chapter 4.

Meaning of 'likely significant effects'

- 3.3 Regulation 105 of the Conservation of Habitats and Species Regulations 2017⁸ (the 'Habitats Regulations'), requires an assessment of the 'likely significant effects' of a land use plan. Relevant case law helps to interpret when an effect should be considered as 'likely' and 'significant', when carrying out HRA of a land use plan.

- 3.4 In the Waddenzee case⁹, the European Court of Justice ruled on the interpretation of Article 6(3) of the Habitats Directive (translated into Reg. 105 in the Habitats Regulations), including that:

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

- 3.5 A relevant opinion delivered to the Court of Justice of the European Union¹⁰ 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."

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

- 3.7 As previously noted, the 'People over Wind' 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.

- 3.8 In summary, the approach to HRA screening should be precautionary (assume effects are likely unless objective information allows them to be ruled out) but disregard trivial effects, and should

⁸ SI No. 2017/2012

⁹ ECJ Case C-127/02 "Waddenzee" Jan 2004.

¹⁰ Advocate General's Opinion to CJEU in Case C-258/11 Sweetman and others v An Bord Pleanala 22nd Nov 2012.

focus on whether the plan or project (either alone or in combination) is capable of undermining the conservation objectives of a European site, and should be carried out without taking into account mitigation. This is the approach taken to HRA screening of the SIR.

Appropriate Assessment

- 3.9 Following the screening stage of HRA, if likely significant effects on European sites are unable to be ruled out, the plan-making authority is required under Regulation 105 of the Habitats Regulations 2017 (as amended) to make an 'Appropriate Assessment' of the implications of the plan for European sites, in view of their conservation objectives. EC Guidance¹¹ states that the Appropriate Assessment should consider the impacts of the plan (either alone or in combination with other projects or plans) on the integrity of European sites with respect to their conservation objectives and to their structure and function.

Assessment scope

- 3.10 A risk-based approach involving the application of the precautionary principle has been adopted in the assessment, such that a conclusion of 'no adverse effects on integrity' has only been reached where it is considered unlikely, based on current knowledge and the information available, that the development in the plan would have an adverse effect on the integrity of a European site.
- 3.11 When carrying out the HRA, particular consideration was given to the possible pathways through which effects may be transmitted to features contributing to the integrity of the European sites. For some types of impacts, zones of influence around European sites have been defined and GIS data used to determine whether potential development fall within these zones. Where assumptions have been made in defining these zones of influence, these are set out and justified in Chapter 5, Appropriate Assessment.
- 3.12 The following colour scheme was used to record the likely impacts of the SIR on European sites and their qualifying habitats and species.

Amber	The potential exists for adverse effects on integrity from the policy provision – assess further or identify appropriate avoidance or mitigation.
Green	Adverse effects on integrity from the policy provision can be ruled out – no further action required.

Assessing the effects on site integrity

- 3.13 For each European site where an uncertain or likely significant effect has been identified in relation to the SIR, the potential impacts have been set out and assessments made (based on the information available) regarding whether there will be an adverse effect on the integrity of the site. As part of the Appropriate Assessment, consideration has been 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 site.
- 3.14 A site's integrity depends on it being able to sustain its 'qualifying features' (i.e. those Annex 1 habitats, Annex II species, and Annex 1 bird populations for which it has been designated) and to ensure their continued viability. A high degree of integrity is considered to exist where the potential to meet a site's conservation objectives is realised and where the site is capable of self-repair and renewal with a minimum of external management support.
- 3.15 A conclusion needs to be reached as to whether or not the SIR would adversely affect the integrity of a European site. As stated in the EC Guidance, assessing the effects on the site(s)

¹¹ *Assessment of plans and projects significantly affecting European sites. Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC.* European Commission Environment DG, November 2001.

integrity involves considering whether the predicted impacts of the Local Plan policies (either alone or in combination) have the potential to:

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

- 3.16 The conservation objectives for each European site (Appendix 2) are generally to maintain the qualifying features in favourable condition. The Site Improvement Plans for each European site provide a high level overview of the issues (both current and predicted) affecting the condition of the European features on the site(s) and outline the priority measures required to improve the condition of the features. These have been drawn on to help to understand what is needed to maintain the integrity of the European sites. Where available, reference has also been made to Natural England's supplementary advice on conserving and restoring qualifying features of European sites.

Stages of the planning process and HRA

- 3.17 It is a principle of HRA established by case law (8) that:

"...adverse effects on areas of conservation must be assessed at every relevant stage of the procedure to the extent possible on the basis of the precision of the plan. This assessment is to be updated with increasing specificity in subsequent stages of the procedure."

- 3.18 The reasons for requiring HRA at the plan-making stage in addition to the project proposal stage include the need to consider the effects of a plan as a whole, helping the plan-maker to consider, for example, whether the inclusion of certain development proposals which would not have an adverse effect on a European site closes off the opportunity to consider alternative locations for other development proposals in the plan which would otherwise have such an effect. Also, identifying likely adverse effects on European sites at the earliest possible stage in the planning process helps to avoid the making of plans which later prove to be impossible to implement.
- 3.19 In the context of the tiered planning process that operates in the United Kingdom, this principle means that while it is not appropriate to defer HRA until a detailed proposal for a development project comes forward, the HRA of a Local Plan is unlikely to be as detailed as one undertaken at project level. Instead, plan level HRA is carried out to a level of detail consistent with that of the proposals in the plan. Occasionally, project applications may be advancing rapidly, in parallel with the plan-making process such that more detailed, project level HRAs are available and can be drawn upon by the HRA of the plan.

European sites

- 3.20 It is common practice in HRA screening to define a buffer around the plan area as a starting point to identifying European sites to be examined and this approach has been accepted by Natural England elsewhere. This reflects the fact that development-related activities such as water abstraction, waste water discharge, air pollution from traffic, and increased recreation can have effects well beyond the Plan area. Some of these European sites may then be scoped out or more distant ones added, depending on the pathways that exist for potentially significant effects to occur.

Review of other plans and projects for 'in combination' effects

Regulatory requirements and guidance

- 3.21 Regulation 105 of the Habitats Regulations 2017 (9) requires an Appropriate Assessment of "any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects".
- 3.22 Natural England provided the Council with the following guidance on this requirement:
- "The alone or in combination requirement has been included in the Directive and Regulations in order to make sure that the effects of numerous small activities, which alone would not result in a significant effect, are assessed to determine whether their combined effect would be significant, and therefore require more detailed assessment. It is only the effects of those plans and projects that are not themselves significant alone which are added into an in combination assessment. The assessment should only include those that genuinely result in a combined effect, which impairs the ability of an interest feature to meet its conservation objectives.*
- In combination assessment should include all plans or projects that have consent or authorisation but are not yet complete, and those that are the subject of an application for consent or authorisation, but are not yet determined. The following list outlines the types of plans and projects that should be considered for an in combination assessment:*
- the incomplete or non-implemented parts of plans or projects that have already commenced;*
 - plans or projects given consent or given effect but not yet started;*
 - plans or projects currently subject to an application for consent or proposed to be given effect;*
 - projects that are the subject of an outstanding appeal;*
 - ongoing plans or projects that are the subject of regular review;*
 - any draft plans being prepared by any public body; and*
 - any proposed plans or projects published for consultation prior to application."*

Approach adopted in the HRA of the SIR

- 3.23 The principles described above have been applied by first identifying other relevant plans for the in combination assessment. A large number of plan and strategy documents could potentially be considered. We focussed our attention on the Forest Heath area SALP being developed in parallel with the SIR plus county and district level strategic plans which provide for development in Forest Heath area and adjacent districts (including the policies of the adopted Forest Heath area Core Strategy that are not being reviewed by the SIR).
- 3.24 To identify other projects that could result in a significant combined effect with the SIR, we reviewed the National Infrastructure Planning website. In addition, the Council was asked whether it was aware of any such projects. This revealed a number of projects which had not yet been developed but for which planning consent had been sought from FHDC or in relation to which the Council has published an EIA scoping request for consultation. These are not included as allocations in the SALP but were judged large enough to present a credible risk that they might

have significant effects in combination with the SIR. The plans and projects reviewed are set out in Appendix 1 with the exception of the emerging SALP, the provisions of which are summarised in the separate HRA report being produced in parallel with this one and which have been referenced where relevant throughout the HRA of the SIR.

- 3.25 The review of other relevant projects proceeded as follows.
- 3.26 Where project level HRA screening has been unable to rule out likely significant effects, then the project cannot proceed in its current form until Appropriate Assessment rules out adverse effects on integrity. At that point, the Appropriate Assessment will need to consider the potential for the project to have effects in combination with other plans and projects, including the SIR and SALP.
- 3.27 Where a project has not yet advanced sufficiently through the planning process for project level HRA screening to have been carried out, there is insufficient publicly available information to consider it in the in combination assessment. Once the project advances to a stage where project level HRA screening is carried out, that HRA will need to consider the potential for project to have effects in combination with other plans and projects, including the SIR and SALP.
- 3.28 Where planning consent had been sought but the Council determined that project level HRA screening was not required, it was assumed that the project would not contribute to in combination effects because such a decision is only made where there is no conceivable pathway between the development and any of the European sites (because of its nature or location).
- 3.29 Where project level HRA screening had been carried out and likely significant effects had been ruled out or project level Appropriate Assessment had been carried out and adverse effects on integrity had been ruled out, a check was made to determine whether any effects were identified by the project level HRA which were assessed as minor but which could combine with minor effects of the SIR and other plans and projects considered in the in combination assessment to become significant. In carrying out this check, while information within the project level HRA was referenced, no reliance was placed on its conclusions to avoid the risk that the process followed to reach those conclusions was contrary to subsequent case law, for example the requirement set out in the 'People Over Wind' judgment to avoid taking into account mitigation when reaching an HRA screening conclusion.

4 HRA screening

- 4.1 The HRA screening of the SIR has determined that Appropriate Assessment is required, as likely significant effects cannot be ruled out. The reasoning for this is presented below.

Is the plan directly connected with or necessary to the management of any European sites?

- 4.2 No; the SIR is not connected with or necessary to the management of any European sites.

Is the plan of a type that could possibly have any (positive or negative) effect on a European site?

- 4.3 The SIR sets out the overall quantum and distribution of development (e.g. housing, employment and infrastructure) to be delivered in the area, which will have associated impacts (e.g. changes to traffic distribution, types or distribution of recreation, water abstraction and discharge, light or noise). These impacts could affect those European sites identified in Table 4.1.

Which European sites could potentially be adversely affected?

- 4.4 This section explains the scoping process for identifying which European sites could be affected by the SIR.
- 4.5 A precautionary buffer distance of 20 km was used to reflect evidence from studies in other parts of the country that coastal sites or large tracts of semi-natural habitat can attract a relatively high proportion of residents from up to 20 km away from the site. This encompasses seven SACs, two SPAs, and four Ramsar sites that lie entirely or partly within 20 km of the Forest Heath area boundary, as follows:
- SACs: Breckland, Devil's Dyke, Rex Graham Reserve, Fenland, Norfolk Valley Fens, Ouse Washes, Waveney and Little Ouse Valley Fens.
 - SPAs: Breckland, Ouse Washes.
 - Ramsar sites: Chippenham Fen, Ouse Washes, Redgrave and South Lopham Fens, Wicken Fen.
- 4.6 The HRA also considered the potential for effects on the three additional, more distant European sites in the area of The Wash since the area's main rivers drain into them and their qualifying features include ones which are sensitive to deterioration in water quality.
- 4.7 The list of sites within the 20 km buffer has been further adjusted by scoping out Waveney and Little Ouse Valley Fens SAC. The three sites which make up this SAC are located right on the eastern edge of the 20 km buffer. The sites comprising the SAC are unlikely to attract significantly increased numbers of visitors due to their location. They are also upstream of any development which will occur in Forest Heath area and it is understood that water abstraction and wastewater discharges for developments in Forest Heath area will not affect this European site.
- 4.8 Redgrave and South Lopham Fens Ramsar site was also initially scoped out of the HRA earlier in the plan-making process. This site is part of the Waveney and Little Ouse Valley Fens SAC and lies on the eastern edge of the 20 km buffer. Although the site has a visitor centre and is relatively well known, it is unlikely that development in Forest Heath area will result in significantly increased visitor numbers due to the site's distance from the area, and the existence of alternative recreational areas closer to or within Forest Heath area, such as large parts of the extensive Thetford Forest. However, while the Ramsar site is upstream of Forest Heath area it was screened back in for the HRA of the SIR because it was identified by the Forest Heath area Water Cycle Strategy as being potentially impacted by water quantity or water quality (including sewer flooding) issues.

- 4.9 The HRA of the SIR therefore considered the European sites set out in Table 4.1. The locations of these European sites in relation to the Forest Heath area boundary are shown in Figure 4.1.

Table 4.1 European sites scoped into the HRA

SAC	SPA	Ramsar site
Sites lying wholly or partly within Forest Heath area		
Breckland Devil's Dyke Rex Graham Reserve	Breckland	-
Sites lying outside Forest Heath area but wholly or partly within 20 km of its boundary		
Fenland Norfolk Valley Fens Ouse Washes	Ouse Washes	Chippenham Fen Ouse Washes Redgrave and South Lopham Fens Wicken Fen
Sites lying entirely beyond 20 km of the Forest Heath area boundary but scoped into HRA due to hydrological connection		
The Wash and North Norfolk Coast	The Wash	The Wash

- 4.10 Relevant information for these European sites is set out in Appendix 2. For each designated site, the appendix provides: a narrative description of the site; a summary of the reasons for its designation as a European site; notes on its current condition, pressures, threats and vulnerabilities; its conservation objectives; and a summary of the non-qualifying habitats and species upon which the qualifying habitats and/or species depend. The main information sources used are summarised at the end of the appendix.

Identifying types of potential impact from the SIR

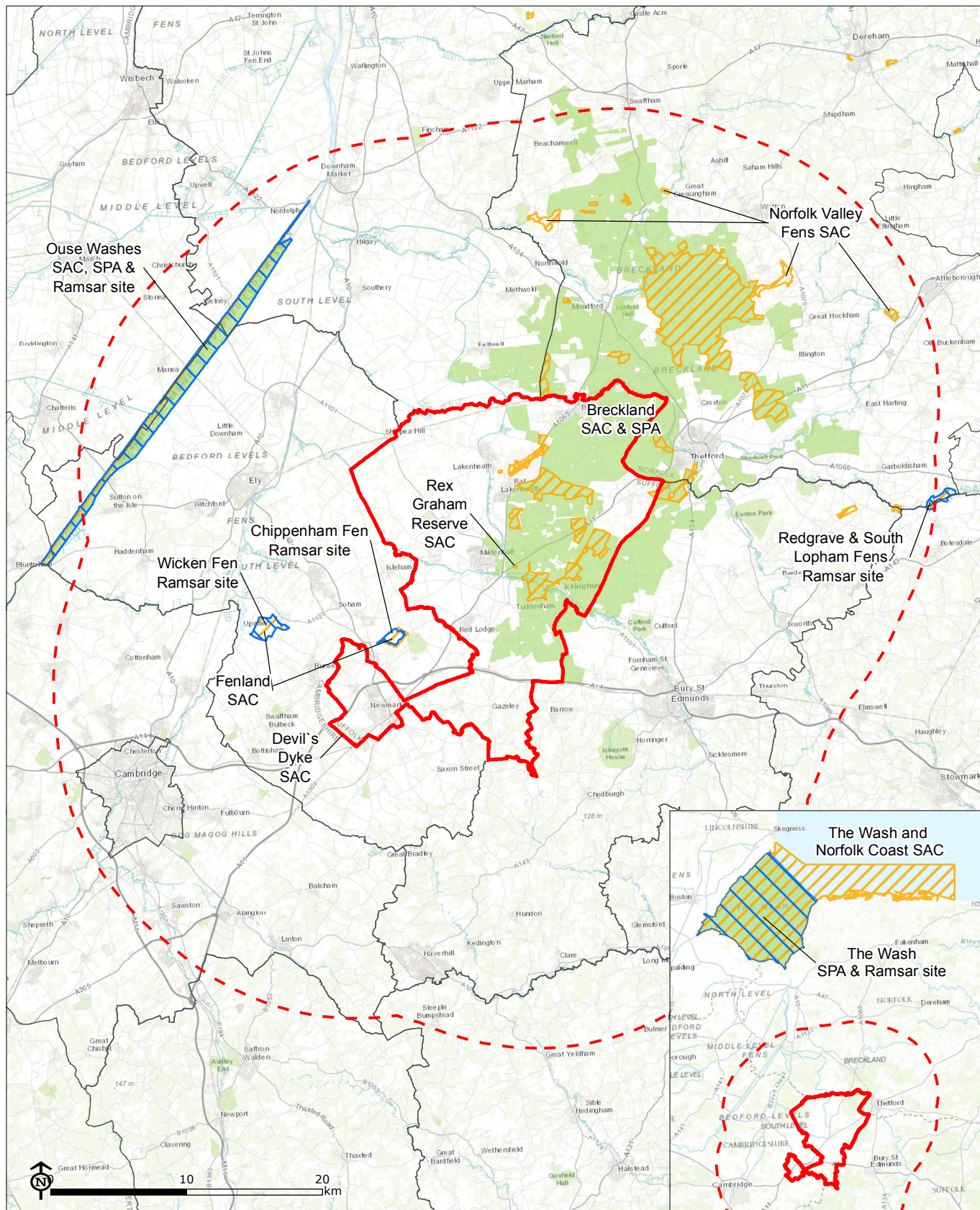
- 4.11 Based on an examination of the designated features of the European sites scoped into the HRA and the nature of activities provided for by the SIR, the following types of potential effect on European sites were identified:
- Direct loss or physical damage due to construction.
 - Disturbance and other urban edge effects from construction or occupation of buildings.
 - Disturbance from construction or operation of roads.
 - Recreational pressure.
 - Water quantity.
 - Water quality.
 - Air quality.

Is the plan likely to have a significant adverse effect on any European site alone?

- 4.12 Likely significant effects from the SIR cannot be ruled out at the screening stage: the SIR sets out the overall quantum and distribution of development to be delivered in the area, and the European sites listed above have been identified as being sensitive to the types of activities that result from development. An Appropriate Assessment is therefore required and this is set out in Chapter 5.

Is the plan likely to have a significant adverse effect on any European site in combination with other plans or projects?

- 4.13 Likely significant effects from the SIR in combination with other plans and projects cannot be ruled out at the screening stage. An Appropriate Assessment is therefore required and this is set out in Chapter 5.



- Forest Heath District Boundary
- 20km Buffer
- District Boundary
- Ramsar Site
- SAC
- SPA

Forest Heath Local Plan
HRA

Figure 4.1
European Sites Scoped
into the HRA

Source: JNCC, Natural England



Map Scale @ A4: 1:400,000

5 Appropriate Assessment

- 5.1 The HRA screening has identified the need for Appropriate Assessment as likely significant effects from the SIR cannot be ruled out without further assessment, either alone or in combination with other plans and projects. This chapter first identifies the elements of the SIR that could give rise to effects on European sites (either alone or in combination with other plan and projects). It then gives more detailed consideration to whether adverse effects on the integrity of the scoped-in European sites can be ruled out for each type of potential effect identified by the screening.

Source of impacts

- 5.2 There are two elements to the SIR that could give rise to effects on European sites. These are outlined below.

Overall housing provision

- 5.3 Provision will be made for at least 6,800 dwellings in the area over the plan period 2011 to 2031; this equates to 340 dwellings per annum (dpa).

The broad distribution of housing

- 5.4 Table 5.1 shows how the overall housing provision for 2011-2031 will be distributed across the area's settlements. To deliver this broad distribution, sites will be identified through the SALP and/or neighbourhood plans.

Table 5.1 Broad distribution of housing in SIR Policy CS7

Settlement	Existing completions and commitments and (2011-2015)	Additional provision	Total
Brandon	103	33	136
Mildenhall	193	1,406	1,599
Newmarket	386	704	1,090
Lakenheath	105	663	768
Red Lodge	1,081	705	1,786
Primary Villages	1,129	357	1,486
Other*	181	-	181
Windfall	-	225	225
TOTALS	3,178	4,093	7,271

* Other includes completions and commitments within rural areas, secondary villages and small settlements

- 5.5 Given that the broad distribution of housing allocates the scale of development around certain settlements, rather than allocating specific sites, there is some uncertainty as to exactly where development will come forward. In order to overcome this, it was assumed that all development set out in the housing distribution options would occur within 2.0 km of the existing boundary of a named Market Town or Key Service Centre (Brandon, Mildenhall, Newmarket, Lakenheath, Red Lodge) or within 1.0 km of a Primary Village; this was judged sufficient to allow for the largest likely settlement extensions.

Relationship with SALP

- 5.6 As explained under each type of effect, the potential for some types of effect is most appropriately assessed by reference to the total amount of housing development being proposed, as set out in the 'Provision' section of the SIR. Other types of effect are more appropriately assessed by reference to the amount of development proposed at broad locations (as set out in the 'Broad Distribution' section of the SIR) or by reference to the specific development sites being allocated (as set out in the HRA of the SALP document being prepared and consulted on in parallel with the SIR). In some cases, although the potential effect was most appropriately assessed at a detailed scale in the HRA of the SALP, it was necessary for the HRA of the SIR to rule out the possibility that adverse effects on integrity could not be avoided under any conceivable spatial distribution of the housing provision, leading to assessment of the effect at more than one scale.
- 5.7 Table 5.2 summarises the scale/ level in the planning process at which each of the types of potential effect listed above was assessed. If detailed examination of evidence during HRA of the SIR revealed any issues specific to individual sites rather than the broad distribution of sites, these were flagged for inclusion in the HRA of the SALP on an exception basis.

Table 5.2 Scale at which each type of potential effect was assessed

Potential effect	HRA of SIR total housing provision	HRA of SIR broad distribution of housing	HRA of individual site allocations in the SALP
Direct loss or physical damage due to construction			✓
Disturbance and other urban edge effects from construction or occupation of buildings		✓	✓
Disturbance from construction or operation of roads		✓	
Recreation pressure	✓	✓	✓
Water quantity		✓	
Water quality		✓	
Air quality		✓	

Direct loss or physical damage due to construction

Potential effects of development

- 5.8 Direct loss of or physical damage to designated habitats, or to habitats on which designated species rely, could result from the construction of new housing, employment space and so on. Construction could also cause direct mortality of designated species.
- 5.9 Potential effects depend on the exact location of development proposals and were therefore most appropriately assessed via HRA of the site-specific allocations set out in the SALP.
- 5.10 **The assessment in relation to direct loss or physical damage is presented in the HRA of the SALP. This ruled out any adverse effects on integrity from direct loss or physical damage due to construction because no site allocation proposed by the SALP overlaps any European site or any 1 km grid square functionally linked to Breckland SPA with five or more stone curlew nesting attempts during 2011-2015.**

Disturbance and other urban edge effects from construction or occupation of buildings

Potential effects of development

- 5.11 The construction or occupation of new buildings provided for by the SIR could result in adverse effects on sensitive, designated species due to increases in noise and vibration or light pollution, the visual presence of buildings and people within the development boundary, or increased numbers of pets and other predators associated with urban areas.
- 5.12 Other types of potential effect on designated species and habitats associated with increased public access were separately considered within the 'recreation pressure' category below.

European sites potentially affected

- 5.13 Disturbance and other urban edge effects from construction or occupation of buildings operate over relatively short distances. Based on a review of the designated features of the scoped-in European sites and the locations of these sites in relation to the former Forest Heath District, the potential for disturbance and other urban edge effects from construction or occupation of buildings within the area only exists in relation to the designated bird species of Breckland SPA.
- 5.14 The European site potentially affected is:
 - Breckland SPA.

Context

- 5.15 Considering the particular sensitivity of Breckland SPA's designated bird species to these types of urban edge effects, correlative studies of stone curlews (10), nightjars (11) (12) (13) (14) and woodlarks (15) have found lower densities of these species in areas close to housing or surrounded by high densities of housing. This avoidance is likely to be due to a range of factors, with individual ones difficult to tease apart. For example, although higher levels of recreational access may lead to harm from disturbance or increased fire occurrence, the avoidance of housing by stone curlews has been clearly demonstrated on arable land where there is limited public access (10). In addition, the large distances over which housing has been shown to have an effect by this research are such that increased public access and fire occurrence seem implausible explanations in isolation; these species may simply show a behavioural response to avoiding the built environment.
- 5.16 Analysis of the pattern of avoidance of housing by stone curlew on arable land suggests that the impact of housing on nest densities is negligible at a distance of 2.5 km from housing and that housing at 1 km has half the impact of housing immediately adjacent to potential nesting habitat (10).
- 5.17 Although the effect of buildings on stone curlew identified by research is from residential properties as opposed to commercial or other building types, that research advises caution in relation to non-residential development types due to the small sample size of these types of buildings in the study and difficulties with reliably classifying them (16).
- 5.18 Research has failed to detect any evidence that screening (such as by shelter belts or landscaping) or reduced lighting levels around buildings might reduce avoidance of built development by stone curlew or allow the distance at which adverse effects occur to be reduced. Many fields do have existing shelterbelts, and the avoidance of housing is still clear across suitable arable land, suggesting that screening will not work as mitigation (10) (16).
- 5.19 In relation to predation effects, evidence shows that pet cats can roam up to 1.5 km at night (17) (18). As well as pets, research has shown that heathland close to urban areas can have higher densities of mammalian predators such as foxes (19) and that there is an increase in the numbers of crows and magpies on sites with greater human activity (20).
- 5.20 For nightjars there is also evidence of avoidance of housing but the sites where this has been studied tend to have lots of housing close by and lots of houses further away, making it virtually impossible to determine the distance to which housing has an effect (14). In relation to avoidance of development effects on woodlark or nightjar (particularly in relation to cat

predation), a 400 m 'no build zone' has been used to mitigate the effects of housing on heathland birds of The Dorset Heaths and Thames Basin Heaths SPAs. The 400 m distance was chosen to minimise additional cat predation and visitor pressure on the heathlands adjacent to development.

- 5.21 In summary, there is evidence of avoidance of housing by stone curlew, and woodlark or nightjar, and evidence that effects from non-residential built development cannot reliably be discounted.
- 5.22 The elements of this body of research available at the time of the HRA of the Core Strategy led, with the agreement of Natural England, to the designation in Core Strategy Policy CS2 of development 'constraint zones' designed to protect Breckland SPA, as shown in the following boxed extract from the Core Strategy.

Core Strategy Policy CS2 Natural Environment (extract)

New built development will be restricted within 1,500m of components of the Breckland SPA designated for stone curlew. Proposals for development in these areas will require a project level Habitat Regulations Assessment (HRA) (see Figure 3). Development which is likely to lead to an adverse effect on the integrity of the SPA will not be allowed.

Where new development is proposed within 400m of components of the Breckland SPA designated for woodlark or nightjar a project level Habitats Regulation Assessment (HRA) will be required (see Figure 3). Development which is likely to lead to an adverse effect on the integrity of the SPA will not be allowed.

New road infrastructure or road improvements will not be allowed within 200m of sites designated as SACs in order to protect the qualifying features of these sites (see Figure 3).

New development will also be restricted within 1,500m of any 1km grid squares which has supported 5 or more nesting attempts by stone curlew since 1995. Proposals for development within these areas will require a project level HRA (see Figure 3). Development which is likely to lead to an adverse effect on the integrity of the SPA will not be allowed.

Assessment

- 5.23 Given the information above, the broad locations for development requiring further consideration are those that:
- overlap, or are within 1,500 m of, SSSI components of Breckland SPA designated for stone curlew; or
 - overlap, or are within 1,500 m of a 1 km grid square with ≥ 5 stone curlew nesting attempts during 2011-2015 associated with Breckland SPA; or
 - overlap, or are within 400 m of, SSSI components of Breckland SPA designated for woodlark or nightjar.
- 5.24 These zones of influence for disturbance and other urban effects are shown in Figure 5.1¹² and are consistent with the distances used to define the constraint zones in the adopted Core Strategy, these having been agreed by Natural England. In relation to stone curlew nesting attempts areas outside of but functionally linked to Breckland SPA, the HRA of the SIR relies on updated data covering the period 2011-2015 rather than the 1995-2006 data that is referred to in Core Strategy policy CS2 and which informed the HRA of the Core Strategy and of the SIR prior to the current stage of plan making. This data better reflects the areas of the SPA used by stone curlews and the areas outside the SPA that are also important. This is consistent with informal advice from Natural England and its comments on the HRA of the Preferred Options SIR.
- 5.25 Potential effects are generally more appropriately assessed via HRA of the site-specific allocations set out in the SALP. It is possible, however, that some strategic housing distributions specified by the SIR would be unlikely to be able to avoid development within the Breckland SPA zones of

¹² Figure only shows those parts of the stone curlew nesting attempts buffer which lie outside and therefore extend the boundary of the 1,500 m buffer around components of Breckland SPA designated stone curlew in order to protect nest sites

influence above, regardless of the specific sites allocated at each identified settlement. As such, area-specific assessments are provided below.

Brandon

- 5.26 All of Brandon and all but a very small area of the land on the boundary of the existing built up area are within 1,500 m of components of Breckland SPA designated for stone curlew. More than half of Brandon and all of its southern and eastern boundaries (including the small area not within the stone curlew zone of influence) are within 400 m of components of Breckland SPA designated for woodlark and nightjar. It is therefore unlikely to be possible to avoid allocations within the zones of influence identified above and adverse effects on integrity on Breckland SPA cannot be immediately ruled out for the broad distribution.

Mildenhall

- 5.27 The eastern side of Mildenhall and adjoining greenfield land fall within 1,500 m of components of Breckland SPA designated for stone curlew and within 400m of components of Breckland SPA designated for woodlark and nightjar. It would therefore be possible to avoid adverse effects on integrity by allocating housing on infill sites and to the north west, west, and south west of the settlement.

Newmarket

- 5.28 The nearest Breckland SPA constraint zone is 4.9 km from the existing settlement boundary. It should therefore be possible to achieve an allocation which avoids adverse effects on integrity.

Lakenheath

- 5.29 Small sections of the land immediately to the east of Lakenheath's settlement boundary are part of the Breckland SAC or within Breckland SPA's constraint zone for stone curlew. In addition, all of the land to the south and east of Lakenheath is within the stone curlew nesting attempts zone of influence. Nevertheless, it would be possible to avoid adverse effects on integrity by allocating housing on infill sites and to the north and west of Lakenheath.

Red Lodge

- 5.30 The south eastern corner of Red Lodge and much of the land to its east and south are within Breckland SPA's constraint zones for stone curlew and/or stone curlew nesting attempts. It would be possible to avoid adverse effects on integrity by allocating housing on infill sites and to the north and west of the settlement.

Primary villages

- 5.31 *Beck Row:* Areas of land approximately 0.8 km to the east of Beck Row's settlement boundary are within Breckland SPA's constraint zones for stone curlew or woodlark and nightjar.
- 5.32 *West Row:* The nearest Breckland SPA constraint zone is 2.8 km to the east of the settlement boundary.
- 5.33 *Exning:* The nearest Breckland SPA constraint zone is 6.8 km to the east of the settlement boundary.
- 5.34 *Kentford:* The eastern half of Kentford and its environs fall within the Breckland SPA stone curlew and/or stone curlew nesting attempts constraint zones.
- 5.35 It would be possible to achieve an allocation which avoids adverse effects on integrity by focussing growth at the Primary Villages of Beck Row, West Row and Exning and ensuring that any allocations to Kentford are outside of the Breckland SPA stone curlew and/or stone curlew nesting attempts constraint zones.

Other

- 5.36 The 'other' provision of 181 dwellings represents dwellings which have already been permitted or completed and where these are within the Breckland SPA constraints zones, adverse effects on the integrity of European sites should already have been ruled out by project level HRA in line with the requirements of Core Strategy Policy CS2.

Windfall

- 5.37 The locations of windfall sites, which represent about 5% of the additional provision in the SIR, will not be known until they come forward. The potential effects of these developments on European sites are therefore more appropriately assessed via project level HRA which is required for by Core Strategy Policy CS2 for all proposals within the constraint zones.

Potential for in combination effects

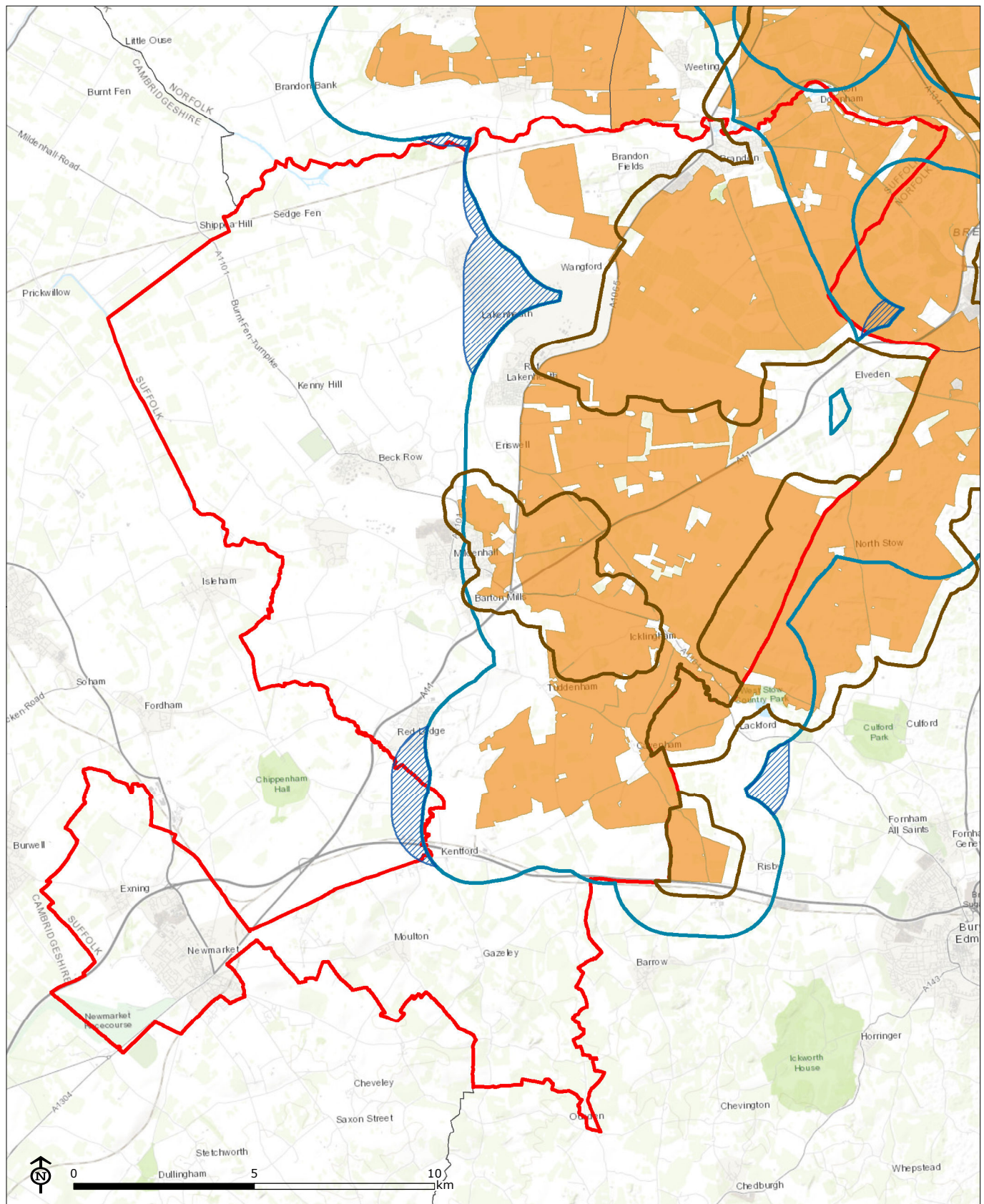
- 5.38 Figure 5.1 shows that Breckland SPA is a large European site which spans a number of neighbouring districts and the stone curlew and woodlark or nightjar zones of influence take in a number of neighbouring settlements, the main relevant focus for growth being Thetford in Breckland District. The review of other relevant plans and projects (Appendix 1) also highlights the economic and tourism development provided by the adopted Forest Heath Core Strategy, which could contribute to urban edge effects in combination. As outlined in Appendix 1, other relevant development plans include various types of mitigation to avoid adverse effects on the integrity of European sites either alone or in combination. It is therefore assumed that the residual (post-mitigation) effect from development provided for by these plans is negligible and need not be considered further in this HRA.

Existing mitigation that could rule out adverse effects on integrity

- 5.39 Policy CS2 of the Core Strategy (see above) requires project level HRA for development proposals within the Breckland SPA constraint zones that correspond to the distances used by this HRA to assess the potential for disturbance and other urban edge effects. It further states that development likely to lead to an adverse effect on integrity will not be allowed.
- 5.40 Policy DM10 of the Joint Development Management Policies document states that proposals for development which would adversely affect the integrity of European sites will be determined in accordance with the Habitats Regulations.
- 5.41 However, it was deemed inappropriate to rely wholly on the generic protection offered by these policies in coming to a conclusion on the effects of the broad distribution of development provided for by the SIR since a high level assessment, appropriate to the HRA of a Local Plan, is possible at the plan-making stage.

Results

- 5.42 It was judged that the mitigation offered by adopted policies alone was insufficient to rule out adverse effects on integrity from the SIR in combination with the development provided for by the Forest Heath Core Strategy and other plans and projects in relation to disturbance and other urban edge effects on Breckland SPA.
- 5.43 However, it was noted that this strategic policy is implemented via allocation policies in the SALP. The HRA of the SALP considered the potential disturbance and other urban effects of these allocations in detail, considering factors such as the screening of the site allocations by existing built development and the presence of features that could act as barriers to the movement of predators.
- 5.44 In relation to disturbance and other urban edge effects, the HRA of the SALP was able to rule out adverse effects on the integrity of Breckland SPA, both alone and in combination. This conclusion from parallel HRA work demonstrates that it is feasible to implement the amount and distribution of housing proposed in the SIR without adverse effect on integrity in relation to disturbance and other urban edge effects either alone or in combination.
- 5.45 **Adverse effects on integrity from the SIR broad distribution of housing alone or in combination with other plans and projects can therefore be ruled out and reliance placed on assessment at a lower tier of plan making but carried out in parallel (HRA of the SALP) to ensure that the particular site-specific allocations avoid adverse effects on the integrity of Breckland SPA.**



- 1,500 m zone of influence around SSSI components of Breckland SPA designated for Stone Curlew
- 1,500 m zone of influence around 1km grid squares with ≥ 5 Stone Curlew nesting attempts 2011-2015
- 400 m zone of influence around SSSI components of Breckland SPA designated for Woodlark or Nightjar
- Breckland SPA
- Forest Heath District Boundary

Map Scale @ A4: 1:150,000

Forest Heath Local Plan
HRA

Figure 5.1
Disturbance & other
urban edge effects
zones of influence

Source: JNCC, Natural England



Disturbance from construction or operation of roads

Potential effects of development

- 5.46 The development provided for by the SIR could result in the need for construction of new roads, improvements to existing roads or increased traffic and congestion on existing roads. This could, in turn, result in adverse effects on sensitive, designated species due to increases in noise and vibration, light pollution, or the visual presence of roads and traffic.
- 5.47 The potential effects of increased road traffic on air quality are dealt with in a separate section below.
- 5.48 The potential for direct damage from road construction was not considered in the HRA of the SIR as it will be addressed via HRA of the Suffolk Local Transport Plan (for major schemes); via HRA of the SALP in relation to direct loss or physical damage due to construction (for road development within allocated development site boundaries); and via project level HRA as required (for any other road development).

European sites potentially affected

- 5.49 Based on a review of the designated features of the scoped-in European sites, the documented pressures and threats facing them and the locations of these sites in relation to Forest Heath area, the potential for disturbance from construction or operation of roads only exists in relation to the designated bird species of Breckland SPA, the other scoped-in European sites either being designated for species not sensitive to disturbance or located outside of the area and too far from the development proposed by the Plan for any transport improvements to be attributable to the Plan.
- 5.50 The European site potentially affected is:
- Breckland SPA.

Context

- 5.51 A clear avoidance by stone curlews of otherwise suitable habitat adjacent to major roads has been demonstrated in a number of studies (10) (21) (22) (23). These effects exist up to a distance of at least 1,000 m from trunk roads and possibly up to 2,000 m.
- 5.52 The most recent analysis of stone curlew data in and around Breckland SPA shows that, when all A-roads are treated equally, regardless of whether the nearest is a trunk road (A11, A14 or A47) or a much less busy A-road, stone curlew nest density is generally lower for areas within 400 m of the nearest A-road, but at greater distances there is no consistent pattern (16).
- 5.53 For trunk roads only (A11, A14 or A47), regardless of the level of buildings, the nest density was always lowest in areas within 500 m of the nearest trunk road and highest in the areas furthest from the nearest trunk road; stone curlews almost completely avoid nesting on otherwise suitable arable land if it is very near to both a Trunk road and a large area of buildings (16). No consistent pattern was found for non-trunk roads. The overarching conclusion of the study authors is that their analysis provides strong support for the continuation in planning policy of a 1,500 m development constraint zone around areas capable of supporting stone curlew, although this primarily appears to be targeted at constraining potential building rather than highway development.

Assessment

- 5.54 Potential disturbance effects from construction or operation of roads were judged to be most appropriately assessed via HRA of the housing distribution options set out in the SIR since the need for and locations of significant additions to road network capacity require consideration of the broad pattern of development across the area. It was judged inappropriate in an HRA of a Local Plan to attempt to separately assess the potential disturbance effects of new access roads serving individual developments from the wider assessment for 'disturbance and other urban edge effects' of the housing distribution options of the SIR and of individual site allocations of the SALP (see separate HRA report). Any project-specific exceptions to this would be assessed via project level HRA, if required.

- 5.55 The SIR does not propose road infrastructure schemes; these would come forward under the Suffolk Local Transport Plan (LTP) which is subject to its own HRA. However, the scale and broad locations for housing provided by the SIR may increase the need for road infrastructure development. The HRA therefore assumed that it is not possible to rule out adverse effects on integrity of the Breckland SPA if development provided for by the SIR would result in the need for any new road infrastructure or road improvements to increase capacity which:
- overlaps, or is within 1,500 m of, SSSI components of Breckland SPA designated for stone curlew; or
 - overlaps, or is within 1,500 m of a 1 km grid square with ≥ 5 stone curlew nesting attempts during 2011-2015 associated with Breckland SPA.
- 5.56 FHDC's Transport Study (24) (25) (26) was used to identify locations where the planned growth in the area would be likely to create a need for new road infrastructure or road improvements to increase capacity. Table 5.3 summarises the likely required highways improvements identified, alongside an initial assessment of their potential to result in adverse effects on integrity, prior to consideration of mitigation.

Table 5.3 Highway improvements and their relation to stone curlew zones of influence

Highway improvement recommended by Transport Study	Potential disturbance of stone curlew?
Junction 18 - A14 / Fordham Road – The enhanced signalised option for the junction to be explored and progressed to an increased level of detail.	No
Junction 17 - A14 / A11 (junction 38) – A need for an upgrading of the existing road markings at the merge and diverge junctions has been identified.	No
Junction 6 - A11 / A1101 Mildenhall Road / A1065 Brandon Road / A1101 Bury Road (A11 Fiveways) – The impact on the junction to be explored when assessed as part of the forthcoming strategic model. Any further mitigation at this junction would require a step-change in provision which will require further investigation such as grade separation.	Yes - within 1,500 m of, SSSI components of Breckland SPA to south east of Mildenhall that are designated for stone curlew
Junction 3 - A1101 Kingsway / A1101 North Terrace / B1102 High Street – No obvious physical improvement schemes have been identified to mitigate the impact at this junction. Further investigation of solutions is required. The potential to prioritise sustainable travel or the potential to direct some movements away from the town centre should be explored as part of a wider multimodal assessment of Mildenhall town centre.	No
Junction 4 - A1101 Kingsway / Brandon Road / A1101 Bury Road – No obvious physical improvement scheme has been identified to mitigate the impact at this junction. Further investigation of solutions is required. The potential to prioritise sustainable travel or the potential to direct some movements away from the town centre should be explored as part of a wider multimodal assessment of Mildenhall town centre.	Yes - within 1,500 m of, SSSI components of Breckland SPA to east of Mildenhall that are designated for stone curlew
Junction 19 - A1304 High Street / Exeter Road / A142 / A1304 Bury Road / B1063 five-arm roundabout – No further improvements identified. Further options should be explored as part of a wider Newmarket town centre study to include the Fordham Road signals and Exeter Road junction.	No
Junction 11 - A1304 Fordham Road / Studlands Park Avenue / Oaks Drive – Performance to be monitored following the implementation of improvements at junction 18.	No
Junction 24 - B1112 / Lord's Walk / Earls Field roundabout – Progress with proposed mitigation scheme as junction operates within theoretical capacity in the future year scenarios. Future year traffic flows to be refined using the strategic model, when available, to understand likely capacity at the junction.	Yes - within 1,500 m of, SSSI components of Breckland SPA to east of Little Eriswell that are designated for stone curlew and within 1,500 m of stone curlew nesting attempts grid square to north east
Junction 25 - B1112 / Eriswell Road priority 'T' junction – Use the strategic model which is currently being developed to refine future year traffic flows to further understand proposed mitigation at this junction. Resolution of a number of issues, including land ownership would be	Yes - within 1,500 m of, SSSI components of Breckland SPA to east of Eriswell that are designated for

Highway improvement recommended by Transport Study	Potential disturbance of stone curlew?
required before mitigation could be implemented.	stone curlew

- 5.57 In summary, the potential exists for adverse effects on integrity due to disturbance effects on the stone curlew population of Breckland SPA in relation to the following highway improvements recommended by FHDC's Transport Study to accommodate planned growth in the area:
- Junction 6 - A11 / A1101 Mildenhall Road / A1065 Brandon Road / A1101 Bury Road (A11 Fiveways).
 - Junction 4 - A1101 Kingsway / Brandon Road / A1101 Bury Road.
 - Junction 24 - B1112 / Lord's Walk / Earls Field roundabout.
 - Junction 25 - B1112 / Eriswell Road priority 'T' junction.
- 5.58 Drawing on the relevant research summarised in the 'Context' section above, these highways improvements were further assessed by reference to whether the road improvement recommended by the Transport Study was on a trunk road (A11, A14 or A47) or on a (less busy) A-road. The potential for adverse effects on integrity due to disturbance from road traffic was assumed to exist within 1,500 m of improved trunk roads and within 400 m of improved non-trunk A-roads. Consideration was also given to whether any intervening features between the relevant stone curlew habitat and the road improvement would mean that additional traffic noise from the improved junction would be unlikely to be perceptible at the receptor habitat, for example because of more significant intervening noise sources.
- 5.59 The results of this further assessment are set out in Table 5.4.

Potential for in combination effects

- 5.60 The traffic modelling within FHDC's Transport Study takes growth in surrounding local authorities into account because of the way future vehicle flows are calculated. Changes in vehicle flows from other authorities are calculated using the National Trip End Model Presentation Program (TEMPRO), which is an industry standard database tool. TEMPRO draws on data for each local authority district in the UK (broken down to Middle-Layer Super Output Area) regarding changes in population, households, workforce and employment (in addition to data such as car ownership), to produce a growth factor that is applied to the measured flows to 'grow' them to the end of the plan period.
- 5.61 In addition to growth in neighbouring districts, the review of other relevant plans and projects in Appendix 1 highlights the potential for traffic growth from economic development provided for by Policy CS 6 of the adopted Forest Heath Core Strategy. Employment growth in Forest Heath area that has already happened since the start of the Core Strategy period, i.e. during 2006-2016, was captured by the transport model within the measured baseline traffic flows. Employment growth associated with the employment and mixed-use site allocations in the SALP was captured by the transport model by estimating the employment growth associated with each allocation and then adjusting the standard TEMPRO growth factors for different parts of Forest Heath area.
- 5.62 The 'AADT 2031 Do Something' scenario of the Transport Study combines the traffic growth from development in neighbouring districts and the Forest Heath Core Strategy with that from the SIR and SALP to quantify expected traffic growth from all relevant sources in combination. These growth figures were used to identify where a need for new road infrastructure or road improvements to increase capacity may arise.

Existing mitigation that could rule out adverse effects on integrity

- 5.63 Policy CS2 of the Core Strategy requires project level HRA for development proposals within the Breckland SPA stone curlew/stone curlew nesting attempts constraint zones that correspond to the distances used by this HRA to assess the potential for disturbance effects of roads on stone curlew. It further states that development likely to lead to an adverse effect on integrity will not be allowed.

- 5.64 Policy DM10 of the Joint Development Management Policies document similarly states that proposals for development which would adversely affect the integrity of European sites will be determined in accordance with the Habitats Regulations.
- 5.65 However, it was deemed inappropriate to rely wholly on the generic protection offered by these policies in coming to a conclusion on the effects of the development SALP provided for by the SIR broad distribution within the constraint buffers since a high level assessment, appropriate to the HRA of a Local Plan, is possible at the plan-making stage.

Results

- 5.66 Table 5.4 assesses the potential effects of the highway improvements highlighted above in more detail. **This demonstrates that adverse effects on the integrity of European sites as a result of the SIR can be ruled out both alone and in combination with other plans and projects.**

Table 5.4 Appropriate Assessment of highway improvements

Junction	Highway improvement suggested by Transport Study	Is junction on a trunk road?	Distance of nearest stone curlew habitat from improved road junction	Other factors that could reduce the perception of additional traffic noise at the receptor stone curlew habitat	Overall conclusion
Junction 6 - A11 / A1101 Mildenhall Road / A1065 Brandon Road / A1101 Bury Road (A11 Fiveways)	<i>"The impact on the junction to be explored when assessed as part of the forthcoming strategic model"</i>	Yes	Whilst parts of Breckland SPA between the A11/A1065 and the built up area of Mildenhall are directly adjacent to the junction, the closest areas of the SPA of importance to stone curlew are approximately 280 m to the east of the junction	None identified	<p>Potential for adverse disturbance effects on integrity of Breckland SPA since approximately 200 ha of the areas of the SPA of importance to stone curlew are within 1,000 m of this recommended trunk road upgrade.</p> <p>Suffolk County Council has commissioned evidence (27) that describes four high level options for improvement of this junction which could potentially feed into the Highways England Road Investment Strategy for Road Period 2 (2020 to 2025) "RIS2" program. These include a "do minimum" option (a hamburger junction) that would require minimal increase in the footprint of the junction with improvements focused on the existing road corridor that would lead to improvements to the junction in terms of traffic flow and reduced queuing; such an option would be likely to avoid direct effects on Breckland SPA. Highways England will investigate all potential options (which is likely to involve substantially more than the four examined in the existing evidence report) and hold public consultation events, which will allow all stakeholders the opportunity to comment, before a preferred option is selected. Highways England would develop a preferred project in accordance with their Project Control Framework and involve Natural England and other key stakeholders.</p> <p>The Appropriate Assessment has ruled out adverse effects on integrity from the SIR since there are technical options available that could deliver the necessary highway improvements without direct effects on the Breckland SPA and since the chosen option would be subject to the necessary environmental assessments including HRA.</p>
Junction 4 - A1101 Kingsway / Brandon Road	<i>"No obvious physical improvement scheme has been identified... potential to</i>	No	The closest areas of the SPA of importance to stone curlew are approximately 1.0 km to the east	The existing built-up area of Mildenhall and employment allocation	Adverse effects on integrity ruled out as the junction is not on a trunk road and closest areas of the SPA of importance to stone curlew are more

Junction	Highway improvement suggested by Transport Study	Is junction on a trunk road?	Distance of nearest stone curlew habitat from improved road junction	Other factors that could reduce the perception of additional traffic noise at the receptor stone curlew habitat	Overall conclusion
/ A1101 Bury Road	<i>prioritise sustainable travel or the potential to direct some movements away from the town centre should be explored"</i>		of the junction	SA17(a) in the SALP are located between the closest areas of importance to stone curlew and this junction improvement, contributing to a reduction in the perception of noise at the receptor habitat.	than 400 m from a non-trunk A-road. Intervening development between the road junction and stone curlew habitat may also contribute to reduced perception of traffic disturbance at the receptor habitat.
Junction 24 - B1112 / Lord's Walk / Earls Field roundabout	<i>"widening of the B1112 north and south arms and the Lord's Walk arm to create two entry lanes onto the junction"</i>	No	The closest areas of the SPA of importance to stone curlew are approximately 940 m to the east of the junction Some areas of the SPA of importance to stone curlew are within 1,500 m of both this improvement and that at Junction 25 - B1112 / Eriswell Road priority 'T' junction	The existing built-up area of Little Eriswell and the A1065 Brandon Road are located between the closest areas of importance to stone curlew and this junction improvement, contributing to a reduction in the perception of noise at the receptor habitat.	Adverse effects on integrity ruled out as the junction is not on a trunk or other A-road. Potential to combine with minor disturbance from improvement at Junction 25 ruled out because the 'other factors' described in the fifth column of this table mean that effects from improvement of Junction 24 are likely to be negligible.
Junction 25 - B1112 / Eriswell Road priority 'T' junction	Signalisation of the junction with the provision of either one or two lanes of entry on the Eriswell Road arm	No	The closest areas of the SPA of importance to stone curlew are approximately 1.0 km to the east of the junction Some areas of the SPA of importance to stone curlew are within 1,500 m of both this improvement and that at Junction 24 B1112 / Lord's Walk / Earls Field roundabout	The A1065 Brandon Road is located between the closest areas of importance to stone curlew and this junction improvement, contributing to a reduction in the perception of noise at the receptor habitat.	Adverse effects on integrity ruled out as the junction is not on a trunk or other A-road. Likely to be minor disturbance but potential for this to combine with disturbance from improvement at Junction 24 ruled out because the effects from Junction 24 improvement are likely to be negligible, as described above.

Recreation pressure

Potential effects of development

- 5.67 Housing development provided for by the SIR could result in increased numbers of visitors to European sites within or close to the area. This could result in adverse effects on European sites with designated features that are sensitive to recreation pressure as follows:
- 5.68 *Designated species mortality or disturbance* - direct mortality of ground nesting birds' eggs or young by visitor trampling or dogs off leads; disturbance of ground nesting birds by recreational visitors and their dogs; mortality due to increased incidence of fires; mortality due to tipping/littering.
- 5.69 *Designated habitats loss or damage* - path erosion or soil compaction by walkers, cyclists, horse riders etc.; eutrophication of soils by dog faeces; increased incidence of fires; tipping/littering; illegal plant collection.

European sites potentially affected

- 5.70 Based on the relevant information reviewed below and correspondence with Natural England, the HRA assumed that no significant contribution to increased recreation pressure could occur more than 7.5 km from new housing development and that the vulnerability to recreation pressure of European sites within this distance of the area boundary was as follows:
- 5.71 *Fenland SAC* – no significant vulnerability to recreation pressure, based on designated features plus pressures and threats described in the Site Improvement Plan.
- 5.72 *Wicken Fen Ramsar site* – no significant vulnerability to recreation pressure, based on designated features plus pressures and threats described in the Site Improvement Plan.
- 5.73 *Chippenham Fen Ramsar site* – no significant vulnerability to recreation pressure, based on designated features plus pressures and threats described in the Site Improvement Plan.
- 5.74 *Devil's Dyke SAC* – no significant vulnerability to recreation pressure, based on designated features plus pressures and threats described in the Site Improvement Plan.
- 5.75 *Rex Graham Reserve SAC* – Whilst the Site Improvement Plan notes that there is an ongoing threat to site features (military orchid) from illegal plant collection, Natural England reports¹³ that the site is generally closed to the public and the plant collection is organised theft rather than linked to recreation. In addition, the related SSSI is in 100% favourable condition. Natural England has confirmed¹⁴ that an assumption of cumulative recreation pressure from all housing allocations within 7.5 km is not necessary.
- 5.76 *Breckland SAC* – Whilst the Site Improvement Plan identifies a *potential* future threat of increased recreation through eutrophication (dog fouling, unauthorised fires) and disturbance of soils, it does not list any SAC designated features as currently being under pressure from public access / disturbance. Natural England has confirmed¹⁵ that it does not hold evidence to suggest that recreation pressure is currently affecting any specific interest features on site and that an assumption of cumulative recreation pressure from all housing allocations within 7.5 km is not necessary.
- 5.77 *Breckland SPA* – the Site Improvement Plan states that designated populations of nightjar and woodlark could be threatened by future increases in recreational visitors. Whilst not highlighted in the Site Improvement Plan, the designated population of stone curlew is also likely to be vulnerable to public access / disturbance since it is a ground-nesting bird and Natural England has confirmed¹⁶ that stone curlew are thought to be disturbed by people walking at a distance of 500 m from a nest.
- 5.78 The HRA therefore considered the potential for recreation pressure on Breckland SPA only.

¹³ Formal consultation comments on HRA at earlier stages of the SIR and SALP plus informal correspondence

¹⁴ Formal consultation comments on HRA at earlier stages of the SIR and SALP plus informal correspondence

¹⁵ Formal consultation comments on HRA at earlier stages of the SIR and SALP plus informal correspondence

¹⁶ Formal consultation comments on HRA at earlier stages of the SIR and SALP plus informal correspondence

Context

- 5.79 There is an extensive evidence base on the effects of recreational disturbance on stone curlews, nightjars and woodlarks, the three Annex I bird species of Breckland SPA. Although national populations of all three species have generally increased in recent years, prospects for further recovery, for nightjar and woodlark at least, may be limited by factors including the effects of recreational disturbance (28).
- 5.80 A study of incubating stone curlews on Salisbury Plain (29) showed that they leave the nest in response to disturbance at considerable distances (>300 m) and that the closer a potential source of disturbance, the greater likelihood that the birds would respond by leaving the nest. Birds were found to be more likely to respond by running or flying from a walker with a dog than from a walker without a dog, or from a motor vehicle.
- 5.81 Studies of nightjars have shown that breeding success is lower on sites with higher levels of access, and for nests close to footpaths. Recreational disturbance, particularly from dogs, causes adults to be flushed from the nest, potentially betraying the presence of the nest to predators such as crows (30) (31) (32) (33).
- 5.82 Woodlarks have been intensively studied in conifer plantations and heathland habitats in the Dorset Heaths (15). This work has shown that otherwise suitable habitat with high levels of recreational access holds lower densities of woodlarks. Whilst breeding success in such areas is actually better, due to reduced competition between woodlarks (34) (35), this is not sufficient to compensate for the effect of disturbance and the net effect on the woodlark population is negative (35).
- 5.83 Having established that the designated bird species of Breckland SPA are sensitive to recreation pressure, it is necessary to consider existing levels of recreation in the SPA and the extent to which these are likely to increase as a result of the development provided for by the SIR.
- 5.84 Detailed analysis of recreation pressure on Breckland SPA has been carried out to inform HRA work for the neighbouring Breckland Core Strategy (36). Parallels can be drawn with statistical modelling of increases in visitor use of paths in the Breckland SPA as a result of different housing growth scenarios for the town of Thetford (37). The three housing growth scenarios examined provided for different distributions of housing to Thetford's existing urban area, an urban extension to its northern boundary, and an urban extension to the south east by 2021, but all three featured total housing growth of 7,743 dwellings during 2007-2031. The fact that more housing growth was proposed for Thetford than is now being proposed for the whole of Forest Heath area (the SIR provides for 6,800 homes during 2011-2031), let alone any individual settlement in the area, means that applying the results from the HRA of the Breckland Core Strategy to understand the potential scale and likely effects of increased recreation pressure around settlements on Forest Heath represents a suitable approach, consistent with the precautionary principle that is required when applying the Habitats Regulations.
- 5.85 The modelling of visitor growth around Thetford allowed the RSPB¹⁷ to use their 'SCARE' model to explore the potential for increased flushing of stone curlews as a result of an increase in access levels resulting from new housing. The model predicted visitor numbers associated with baseline and future housing numbers to paths in Breckland SPA. The resulting calculation of the mean number of disturbance events per hour (averaged across all path sections within each 3 km grid square) increased from a baseline range of 0.04-1.10 with current housing levels to a range of 0.06-1.80, as an average for all future housing scenarios. Although this analysis was based on proposed levels of housing growth in and around Thetford, the results are also relevant to housing growth around settlements in Forest Heath area, given the close geographical relationship of the two areas to each other and to Breckland SPA.
- 5.86 As a means of determining the likely scale of recreation pressure on the other two Annex I species of Breckland SPA (woodlark and nightjar), the HRA of the Breckland Core Strategy (36) also analysed how visitor levels in Breckland SPA compare to two other SPAs which support woodlark and nightjar, namely Dorset Heaths SPA and Thames Basin Heaths SPA. This comparison is useful because the effects of recreation pressure and associated mitigation have been widely examined at these two SPAs. The comparison established that Breckland SPA

¹⁷ Early draft report provided to Liley et al by R. Langston, RSPB, on 21/9/08

represents a much larger parcel of land with public access and has far fewer houses nearby (within 500 m or within 5 km) compared to Dorset Heaths SPA or Thames Basin Heaths SPA. Directly comparable visitor data were unavailable for the three European sites but very broad brush estimates suggested that visitor pressure on Breckland SPA is low relative to the other two SPAs. This was presumably because the density of population within the vicinity of both the Dorset Heaths SPA and Thames Basin Heaths SPA is much greater than for Breckland SPA. The HRA of the Breckland Core Strategy concluded that the modelled increases in visitors as a result of planned new housing in Breckland District would still not result in the same general level of recreation pressure on Breckland SPA as is currently experienced on the Dorset Heaths SPA and Thames Basin Heaths SPA.

- 5.87 The HRA also needs to consider the distance over which increases in recreation pressure associated with new housing may be significant. Work in other parts of the country (36), (38) has shown that coastal sites or large tracts of semi-natural habitat will attract a relatively high proportion of residents from up to 20 km away from the site. Patterns of recreational use of the Thetford Forest and surrounding areas (mostly within Breckland SPA) established through visitor surveys (37) indicate that whilst many visitors are relatively local (43% had travelled less than 5 km from their home postcode to the interview location within the Forest), 37% had travelled more than 10 km from home. Almost all of Forest Heath area lies within 10 km of the Breckland SPA, as do all of its major settlements.
- 5.88 A more recent visitor study for Breckland SPA (39) concentrated on heathland and forest ('Thetford Forest') areas of the SPA rather than farmland on the basis that these areas attract more visitors, and from further afield, since access to arable farmland is available close to home for many of the area's residents. It noted the precautionary approach taken by the HRA of the Breckland Core Strategy to potential recreational disturbance due to a lack of firm evidence to determine whether the Annex I birds of Breckland SPA are being adversely affected by recreational disturbance. Based on the new visitor survey work carried out, the study went on to advise a continued need for a precautionary approach when considering the future growth proposals for both the St Edmundsbury and Forest Heath areas.
- 5.89 A key finding of the research was that the majority of visitors are local residents, living within a 10 km radius and using Thetford Forest as their local green space which they visit at least weekly. The research recommended that:

"Any new housing within this radius should be identified as development that would be likely to have a significant effect as a result of recreational disturbance upon the SPA, in the absence of any counteracting measures and taking a precautionary approach. It is also likely that, the closer new housing is to the Forest, the greater the additional recreational pressure will be."
- 5.90 The research noted that its findings on the relationship between visitor rates and distance from home were similar to those presented in the HRA of the Breckland Site Specific Policies and Proposals Document (40) from a different data set. By further analysing visitor surveys (37) using just the data for visitors interviewed within Thetford Forest (Annex I bird species of Breckland SPA are particularly concentrated in these), the HRA showed that visitor rates flatten out at about 7.5 km from home postcodes to the Thetford Forest boundary; this contrasts with the approach used by (39), which measured distances from home postcodes to actual survey locations within the Thetford Forest). The HRA (40) went on to conclude that:

"...7.5km is a suitable precautionary distance, beyond which development is not likely to result in a notable increase in visitor use. The majority of visitor pressure arises from within 7.5km."
- 5.91 On this basis, Natural England has confirmed that it agrees that new development is unlikely to contribute significantly to recreation pressure on Breckland SPA where development is located more than 7.5 km from the SPA boundary (41).
- 5.92 In formal representations on the HRA of the Preferred Options SIR (see Appendix 3) Natural England confirmed that the 7.5 km recreation zone of influence does not apply to farmland areas of Breckland SPA because farmland is widely available across the area and residents can therefore be assumed to use farmland near to home (for example for walking dogs) rather than travelling up to 7.5 km, as they might to access woodland or heathland areas. All studies on visitor behaviour at Breckland SPA of which LUC is aware are based on visitors

to the forest and heathland areas of the SPA rather than farmland areas so there is no definitive data which can be used to define a recreation buffer for the farmland areas of Breckland SPA. In the absence of data specific to visits to farmland areas of the SPA, reference was made to information on walking distances to the SPA more generally (39).

Assessment

- 5.93 The Forest Heath Core Strategy provides for 6,400 dwellings during 2001-2021 plus a further 3,700 during 2021-2031. The HRA of the Core Strategy concluded that the scale and broad location of housing growth proposed would increase visitor numbers to Breckland SPA, in combination with housing growth in neighbouring Breckland District. Based on the results of the modelling described above and the fact that the scale of housing growth at each of Forest Heath's settlements would be less than was planned for Thetford (7,743 dwellings during 2007-2031), the Forest Heath Core Strategy HRA concluded that the increase in recreation pressure would be small and unlikely to reach the same levels experienced by broadly comparable SPAs (Thames Basin Heaths and Dorset Heaths). This analysis remains valid for the broadly similar scale of growth now proposed by the SIR (6,800 dwellings during 2011-2031). Further comfort can be taken from the fact that whilst many of the Breckland grass heaths have 'open access land' designated under the Countryside and Rights of Way Act 2000 (CROW), restrictions are put in place each year due to the presence of stone curlews which will minimise disturbance effects on those sites.
- 5.94 Nevertheless, the visitor modelling described above provides evidence that some areas of habitat would be less likely to be used by stone curlews as a result of recreational disturbance linked to new housing development. Thus, whilst the increase in recreation associated with the SIR and SALP is likely to be low, adverse effects on integrity on Breckland SPA in relation to its Annex I birds cannot initially be ruled out on a precautionary basis. The need for a precautionary approach is also indicated by the additional uncertainty created by the fact that Breckland SPA bird distributions change over time, particularly those of nightjar and woodlark in relation to forestry management.
- 5.95 Given the general alignment of the two Breckland SPA visitor studies discussed above, the potential for adverse effects on integrity could not be immediately ruled out from housing development within 7.5 km of non-farmland (see discussion above) areas of Breckland SPA. The farmland parts of Breckland SPA were identified as those overlain by SSSI units which the Natural England website (42) identifies as having an 'Arable and horticulture' habitat type. Development more than 7.5 km from Breckland SPA was assumed to have no effect.
- 5.96 Because of the relatively large size of the zone of influence for recreation pressure (7.5 km from non-farmland components of Breckland SPA), recreation pressure from housing development acts at a strategic scale such that while recreation pressure from a single new dwelling would not be significant, it is not possible to rule out the possibility that the total recreation pressure from multiple housing developments within the 7.5 km zone of influence would be significant in combination.
- 5.97 Footprint Ecology's 2010 report (39) indicates that 75% of visitors on foot travelled up to 1.3 km from home to the survey point and none travelled more than 1.6 km¹⁸. Bearing in mind that the HRA screening of site allocations is concerned with the distance from home to the habitat boundary rather than a point within it, a farmland recreation zone of influence of 1.5 km should capture practically all visits on foot. This zone of influence was also drawn around stone curlew nesting attempts areas. Although mapping was not available to show whether all stone curlew nesting attempts areas are on farmland it is precautionary and consistent with known habitat preferences of stone curlew to assume that they are. This approach has been agreed with Natural England (41), based on the distances at which stone curlew suffer an effect and the fact that any potential recreational effects caused by development proposals within the stone curlew nesting attempts areas would be picked up at the planning application stage due to the requirements of Core Strategy Policy CS2.

In summary, adverse effects could occur for housing development:

¹⁸ More recent studies such as Footprint Ecology's 2016 report 'Visitor surveys at European protected sites across Norfolk during 2015 and 2016' do not appear to provide a more accurate distance to use

- within 7.5 km of the boundary of non-farmland parts of Breckland SPA, or
- within 1.5 km of the boundary of farmland parts of Breckland SPA or of stone curlew nesting attempts areas.

5.98 The resulting recreation zones of influence are shown in Figure 5.2. Given the spatial nature of the assessment criteria, potential effects were primarily assessed via HRA of the housing distribution options and assessment of site allocation options, as set out in a separate HRA report accompanying the SALP. However, given the large proportion of the area covered by these zones of influence, it was also necessary to assess whether the total housing provision provided by the SIR could feasibly be delivered without adverse effects on integrity.

Effects of overall housing provision

5.99 Since the protective policies within the Core Strategy remain in force and the SIR provides for less housing during 2011-2031 than the Core Strategy, it is probable that adverse effects on the integrity of European sites will not arise. However, in light of the time that has elapsed since the Core Strategy was subject to HRA and following the precautionary principle, further assessment was necessary to confirm whether or not adverse effects on integrity would arise.

5.100 The potential for recreational disturbance exists from any housing development that is within 7.5 km of the non-farmland parts of Breckland SPA, or within 1.5 km of the farmland parts of Breckland SPA, or within 1.5 km of stone curlew nesting attempts areas providing supporting habitat to Breckland SPA. As shown in Figure 5.2, this zone of influence covers most of Forest Heath area and it was judged unlikely that any reasonable alternative distribution of 6,800 homes would be able to avoid this zone of influence entirely. A potential for adverse effects on integrity of the Breckland SPA due to recreation pressure from the overall housing provision was therefore identified, prior to consideration of mitigation.

Effects of broad distribution of housing

Based on the zones of influence described above, potential effects of the broad distribution of housing are assessed by settlement in Table 5.5. Development with no housing component was assumed to not give rise to recreation pressure.

Table 5.5 Potential effects of broad distribution of housing for recreation pressure

Settlement	Able to rule out potential for adverse effects on integrity?
Brandon	All of Brandon and the undeveloped land around the existing settlement boundary are within the Breckland SPA zone of influence for recreation pressure. Therefore not possible to rule out potential for adverse effects on integrity (prior to mitigation) on Breckland SPA under any likely allocation of the housing distribution figure within or adjoining the settlement.
Mildenhall	All of Mildenhall and the undeveloped land around the existing settlement boundary are within the Breckland SPA zone of influence for recreation pressure. Therefore not possible to rule out potential for adverse effects on integrity (prior to mitigation) on Breckland SPA under any likely allocation of the housing distribution figure within or adjoining the settlement.
Newmarket	None of Newmarket and the undeveloped land around the existing settlement boundary is within the Breckland SPA zone of influence for recreation pressure. Therefore possible to rule out potential for adverse effects on integrity (prior to mitigation) on Breckland SPA under any likely allocation of the housing distribution figure within or adjoining the settlement.
Lakenheath	All of Lakenheath and the undeveloped land around the existing settlement boundary are within the Breckland SPA zone of influence for recreation pressure. Therefore not possible to rule out potential for adverse effects on integrity (prior to mitigation) on Breckland SPA, under any likely allocation of the housing distribution figure within or adjoining the settlement.
Red Lodge	All of Red Lodge and the undeveloped land around the existing settlement boundary are within the Breckland SPA zone of influence for recreation pressure. Therefore not possible to rule out potential for adverse effects on integrity (prior to mitigation) on Breckland SPA, under any likely allocation of the housing distribution figure within or adjoining the settlement.
Primary Villages	All of Beck Row and West Row and the undeveloped land around them boundary are within the Breckland SPA zone of influence for recreation pressure. The area to the south west of Kentford and all of Exning and the surrounding area are outside of the Breckland SPA zone of influence for recreation pressure so it would theoretically be possible to achieve the SIR's broad distribution of housing to Primary Villages without adverse effects on integrity due to recreation pressure on Breckland SPA by allocating all of the housing figure for Primary Villages to these areas. However, it is probably unrealistic to expect that all of the housing required to

Settlement	Able to rule out potential for adverse effects on integrity?
	be provided at the four Primary Villages will be allocated to Exning and part of Kentford. Therefore not possible to rule out potential for adverse effects on integrity (prior to mitigation) on Breckland SPA, under any likely allocation of the housing distribution figure within or adjoining the Primary Villages due to likely allocations to those areas of the Primary Villages located within the Breckland SPA zones of influence for recreation pressure (Beck Row, West Row, eastern half of Kentford).
Other	The 'other' provision of 181 dwellings represents dwellings which have already been permitted or completed and these developments should therefore have already been subject to HRA, if relevant, and mitigated any adverse effects on integrity that were identified.
Windfall	The locations of windfall sites, which represent about 5% of the additional provision (excluding completions and commitments) in the SIR, will not be known until they come forwards. The potential effects of these developments on European sites are therefore more appropriately assessed via project level HRA.

- 5.101 In summary, the initial assessment found that adverse effects on integrity due to recreation pressure on Breckland SPA could not be ruled out for the SIR broad distributions of housing to Brandon, Mildenhall, Lakenheath, Red Lodge, and the Primary Villages (within the Breckland SPA recreation zones of influence).

Potential for in combination effects

- 5.102 As indicated by the relatively large size of the zone of influence for recreation pressure (7.5 km from non-farmland components of Breckland SPA), recreation pressure from housing development acts at a strategic scale. This means that while recreation pressure from a single new dwelling would be unlikely to be significant, it is not possible to rule out the possibility that the total recreation pressure from multiple housing developments within the 7.5 km zone of influence would be significant in combination.
- 5.103 Figure 5.2 shows that Breckland SPA is a large European site which spans a number of neighbouring districts and the 7.5 km zone of influence around its non-farmland components takes in a number of local population centres including Thetford in Breckland District and Bury St Edmunds in the former St Edmundsbury Borough. A review of the Core Strategies for these two districts (Appendix 1) indicates that the spatial distribution of residential development proposed in them has the potential to contribute to increased recreation pressure on Breckland SPA.
- 5.104 These development plans have put in place mitigation to avoid adverse effects on integrity regarding recreation pressure effects on European sites from the development plans for those districts, either alone or in combination. It is therefore assumed that the residual (post-mitigation) recreation pressure from development in neighbouring districts is negligible and need not be considered further in the HRA of Forest Heath's Local Plan documents.
- 5.105 The review of other relevant plans and projects (Appendix 1) also highlights the potential for economic and tourism development provided by Policy CS 6 of the adopted Forest Heath Core Strategy to contribute to recreation pressure on Breckland SPA. The HRA of the SIR therefore considers the potential effects of the housing provided by the SIR in combination with the development provided by the Core Strategy.

Existing mitigation that could rule out adverse effects on integrity

- 5.106 Policy CS2 of the Core Strategy (see above) requires project level HRA for development proposals within the Breckland SPA HRA constraint zones. It further states that development likely to lead to an adverse effect on integrity will not be allowed.
- 5.107 Policy DM10 of the Joint Development Management Policies document states that proposals for development which would adversely affect the integrity of European sites will be determined in accordance with the Habitats Regulations.
- 5.108 However, it was deemed inappropriate to rely wholly on the generic protection offered by these policies in coming to a conclusion on the development proposed by the SIR since a high level assessment, appropriate to the HRA of a Local Plan, is possible at the plan-making stage.

- 5.109 Adopted Local Plan policies in the Core Strategy and Development Management Policies document also provide a general commitment to provide new or enhanced open space alongside new development and to manage and monitor recreation pressure as follows:

Core Strategy policies (43)

- 5.110 Policy CS2: Natural Environment - The policy promotes green infrastructure enhancement and/or provision on all new developments.
- 5.111 Policy CS13: Infrastructure and Developer Contributions - This requires sufficient capacity in existing local infrastructure, including for open space, sport and recreation, before land is released for development. It also provides for developer contributions to improve infrastructure to the required standard before development is occupied and to arrange for its subsequent maintenance. Guidance on how the Council will implement the open space requirements within this policy is provided in an SPD (44) which includes the approach to determining when developer contributions can be used to provide off site open space.

Development management policies (45)

- 5.112 Policy DM12: Mitigation, Enhancement, Management and Monitoring of Biodiversity states that:
"All new development (excluding minor household applications) shown to contribute to recreational disturbance and visitor pressure within the Breckland SPA and SAC will be required to make appropriate contributions through S106 agreements towards management projects and/or monitoring of visitor pressure and urban effects on key biodiversity sites."
- 5.113 Policy DM42: Open Space, Sport and Recreation Facilities protects against the loss of existing open space as a result of development and further states that:
"where necessary to the acceptability of the development, the local planning authority will require developers of new housing, office, retail and other commercial and mixed development to provide open space...or to provide land and a financial contribution towards the cost and maintenance of existing or new facilities, as appropriate."
- 5.114 Policy DM44: Rights of Way protects against the loss of existing or proposed rights of way and enables improvements to rights of way to be sought:
"in association with new development to enable new or improved links to be created within the settlement, between settlements and/or providing access to the countryside or green infrastructure sites as appropriate".

Accessible Natural Greenspace Study

- 5.115 In addition to these general policy commitments to provision and enhancement of open space and rights of way, the Council has carried out an Accessible Natural Greenspace Study (46) to provide evidence on appropriate accessible natural greenspace that will support the planned growth in the area. The study reviews accessible natural greenspace provision at the area's main settlements, explores the opportunities for new greenspace and access routes that could be delivered to support the planned growth, and outlines a recreation pressure mitigation strategy for each main settlement.
- 5.116 FHDC's study updates an assessment, first presented in the Core Strategy, of the availability of natural greenspace at each main settlement in the area and its capacity for additional visitors.
- 5.117 Drawing on the Council's Supplementary Planning Document (SPD) for Open Space, Sport and Recreation Facilities (44), the Accessible Natural Greenspace Study then sets a minimum provision standard of 2.3 ha of accessible natural greenspace per 1,000 population. Population growth in the area is currently estimated to be 17,000 over the Local Plan period (47), so this provision standard equates to a total accessible natural greenspace requirement of at least 39 ha. The Accessible Natural Greenspace Study goes on to determine the minimum amount of accessible natural greenspace that should be provided at each of the area's settlements by applying the 2.3 ha per 1,000 population standard and an assumption of 2.34 persons per household to the number of homes to be provided at each settlement by the SIR and SALP.

- 5.118 In discussing the design of Suitable Accessible Natural Greenspace (SANG) to most effectively mitigate recreation pressure on Breckland SPA, the Accessible Natural Greenspace Study makes reference to Natural England guidance. It adapts this guidance in light of the Forest Heath area context, in particular the fact that because a large proportion of the area is designated for biodiversity, in some areas there is very little space to provide SANGs at settlements. It therefore proposes some flexibility in applying the guidance, for example by providing greenspace which may be smaller than 2 ha where space does not allow larger SANGs but ensuring it is connected to other greenspace by attractive walking and cycling routes.
- 5.119 Discussion between the Council and Natural England has highlighted two SSSIs, Maids Cross Hill SSSI at Lakenheath and Red Lodge SSSI at Red Lodge, which are in close proximity to and act as the main areas of natural greenspace for these settlements. These SSSIs are already subject to increasing recreation pressure and the Accessible Natural Greenspace Study documents that the Council has agreed with Natural England the need for a wardening service at these two sites. This element of mitigation is not directly relevant to the HRA as the SSSIs in question are not part of European sites but demonstrates the potential role for measures other than SANG provision, such as visitor management, to mitigate recreation pressure.
- 5.120 The Accessible Natural Greenspace Study also notes that to avoid potential adverse effects on populations of Breckland SPA's designated species before they occur, monitoring of visitor levels and activities and monitoring of the effectiveness of mitigation measures such as Suitable Accessible Natural Greenspace (SANG) provision is likely to be required.
- 5.121 Drawing all of this information together, the Accessible Natural Greenspace Study proposes a recreation mitigation strategy, the key principles of which are reproduced in Box 1. The document then further develops these via specific proposals for each settlement.

Box 1: FHDC Recreation Mitigation and Monitoring Strategy - Key Features

- Provide at least the level of open space set out in the SPD for Open Space, Sport and Recreation Facilities on all development sites.
- Where there is already a sports pitch and formal provision available within the community that is easily accessible, take a flexible approach to increase the natural open space through the SPD provision.
- In those settlements shown through the ANGSt study to be deficient in a 2-20 ha local green space, aim to create new open space of this size in association with new development. This should be located within 300 m of the new dwellings to ensure easy access for the new residents, and the design should, as much as is practicable, follow the (adapted) Natural England guidelines.
- Secure the provision of a large SANG area, at least 10 ha, such as a country park with adequate car parking facilities and natural areas which fulfil many of the requirements of the Natural England SANG design.
- New green space should be connected to the existing GI network through the retention of existing and creation of new features such as tree belts, hedges, grasslands, and river corridors.
- For development sites in settlements that are within 7.5 km of the heathland and forest components of Breckland SPA, improve and connect the wider green infrastructure network to provide access and walking routes of approximately 2.5 km in length.
- A warden service should be established where development could lead to recreational pressure that could damage the interest features of the existing sensitive open spaces that are designated nationally and/or locally. These sites include Maids Cross Hill SSSI and LNR, Red Lodge Heath SSSI and Aspal Close LNR.
- Where appropriate and proportionate to the scale and location of development, monitoring should be secured. Consultation with Natural England will be necessary to agree the level of monitoring.

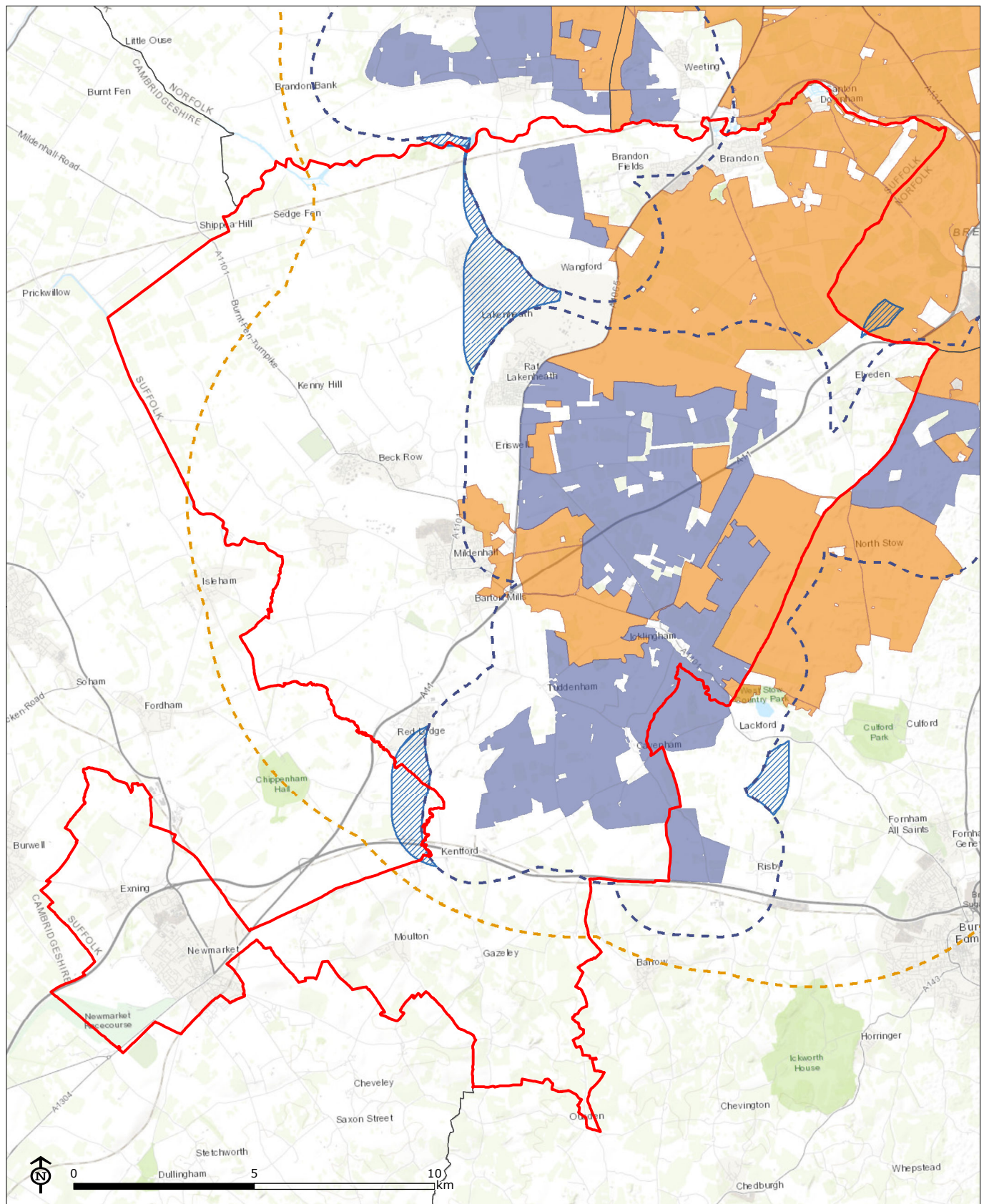
- 5.122 In commenting on a draft of the Accessible Natural Greenspace Study during Preferred Options consultation on the SIR and SALP, Natural England stated that the study *"...has correctly identified the areas which are lacking natural greenspace"* and accepted the need to *"increase greenspace and green networks in a flexible way as suggested"*, given the limited, undesignated space available at the area's settlements. Where Natural England made suggestions to strengthen the mitigation offered by the study, such as inclusion of a large SANG area (at least 10 ha) and to

focus on improvements to the wider green infrastructure network on development at settlements within 7.5 km distance of the heathland and forest areas of Breckland SPA, FHDC has given consideration to these and reflected them in the latest (January 2017) version of the study.

- 5.123 Provision of Suitable Alternative Natural Greenspace (SANG) is widely accepted as an effective measure for diverting recreational visits away from European sites. The Council has also commissioned a study (results not available at the time of writing) to review evidence of the effectiveness of SANGS which will inform the detailed design, delivery and management of the SANGS and other access and recreation measures.

Results

- 5.124 It was judged that the mitigation offered by adopted policies alone was insufficient to rule out adverse effects on integrity from the SIR, including in combination with the development provided for by the Forest Heath Core Strategy, in relation to recreation pressure on Breckland SPA. This was primarily because these policies do not implement the Recreation Mitigation and Monitoring Strategy set out in FHDC's Accessible Natural Greenspace Study.
- 5.125 However, it was noted that this strategy is in the process of being implemented via provisions in policies of the SALP being prepared in parallel with the SIR, for example requiring provision of alternative natural greenspace, dog-friendly access routes and connections to the wider green infrastructure network as well as also requiring applicants to submit detailed information in relation to the implementation of these measures. Consideration was therefore given to whether the policies set out in the emerging SALP, if adopted, could provide sufficient mitigation in this regard.
- 5.126 In relation to adverse effects on integrity from recreation pressure, the HRA of the SALP concluded as follows:
- "It is judged that the mitigation offered by policies to provide and enhance open space and rights of ways networks and the linkage of these to a coherent Recreation Mitigation and Monitoring Strategy set out in the Accessible Natural Greenspace study is sufficient to avoid adverse effects on integrity due to recreation pressure on any European site, including Breckland SPA."*
- 5.127 This conclusion demonstrates that it is feasible to implement the overall housing provision within the SIR without adverse effects on integrity in relation to recreation pressure either alone or in combination with the Core Strategy.
- 5.128 **Adverse effects on integrity from the SIR in combination with other plans or projects can therefore be ruled out and reliance placed on assessment at a lower tier of plan making but carried out in parallel (HRA of the SALP) to ensure that site-specific allocations incorporate appropriate elements of FHDC's Recreation Mitigation and Monitoring Strategy to avoid adverse effects on integrity.**



- Forest Heath District Boundary
- Farmland areas of Breckland SPA
- 1.5km zone of influence around farmland areas of Breckland SPA
- 1.5km zone of influence around 1km grid squares with ≥ 5 Stone Curlew nesting attempts 2011-2015
- Non-farmland areas of Breckland SPA
- 7.5 km zone of influence around non-farmland areas of Breckland SPA

Map Scale @ A4: 1:150,000

Forest Heath Local Plan HRA

Figure 5.2: Recreation pressure zone of influence around Breckland SPA

Source: JNCC, Natural England



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

CB:VG EB:Goosen_V LUCGLA 6446-01_001_ADOPT_Fig4-2_Recreation_Buffers 16/03/2018

Water quantity

Potential effects of development

- 5.129 Water abstraction to supply new development provided for by the SIR could result in changes to water levels or flows at hydrologically connected European sites with the potential for adverse effects on designated features sensitive to such changes.
- 5.130 Unless otherwise cited, the information in this section is sourced from the Water Cycle Strategy supporting the SIR and SALP (48) and subsequent addenda (49) (50).

European sites potentially affected

- 5.131 The potentially affected European sites depend on the hydrological connections between those sites and the water resources that are abstracted to supply the needs of Forest Heath area. In consultation with Natural England and the Environment Agency, the Water Cycle Strategy (48) (49) (50) carried out a screening assessment for all of the scoped in European sites for potential water quantity effects. Adverse effects on water quantity from the SIR could not be ruled out on Breckland SAC/SPA or on Chippenham Fen Ramsar site because the Water Cycle Strategy concluded that the catchments of these European sites included water resource areas impacted by the proposed development.

Context

Anglian Water Strategy

- 5.132 Forest Heath area's potable water is supplied by Anglian Water. Water companies have a statutory duty to establish how planned development in their area can be serviced. These plans are set out in their Water Resources Management Plan (WRMP). Investments to deliver the plans are based on five year planning cycles known as Asset Management Periods (AMP) so the water company programme for water infrastructure upgrades may constrain the rate at which residential growth can be supported.
- 5.133 In 2015, Anglian Water published its latest WRMP for the period 2015-2040 which shows that three resource zones (RZs) fall within Forest Heath area – Newmarket RZ, West Suffolk RZ, and Ely RZ. Table 5.6 summarises for each of these (RZs) the scale of residential growth assumed by the WRMP, the year by which it was forecast that demand would exceed supply in the absence of future supply and demand management measures, and the preferred supply and demand management measures proposed to bring supply and demand back into balance. It is notable that the WRMP deliberately makes its own assumptions on housing growth rather than using local authority policy figures. The forecasting also assumed that demand management (various leakage reduction, enhanced metering and water efficiency measures) would be implemented in each Resource Zone.

Table 5.6 Forecast supply-demand status for Water Resource Zones covering Forest Heath area (51) (48) (49) (50)

Resource Zone	Supply source	Assumed dwellings growth per annum in RZ 2015-2040	Year by which RZ enters deficit	Preferred schemes to maintain supply-demand balance
Newmarket	Groundwater	250	N/A – remains in surplus	None
West Suffolk	Groundwater	500 (2015-2020) 600 (2020-2025) 700 (2025-2040)	2024/25	A river restoration and recirculation project and a transfer from East Suffolk RZ
Ely	Groundwater	500	2024/25	Sustainability reductions at two Water Treatment Works and a

Resource Zone	Supply source	Assumed dwellings growth per annum in RZ 2015-2040	Year by which RZ enters deficit	Preferred schemes to maintain supply-demand balance
				transfer from Fenland/ Newmarket RZ

- 5.134 Following review of the 2015 WRMP and consultation with Anglian Water, the Water Cycle Strategy concluded that the development proposed by the Forest Heath SIR and SALP can be supplied with water without increased abstraction and where possible utilising transfer from surrounding RZs in water surplus and that there would therefore be no negative impact from the development proposed in terms of water supply.

Catchment Abstraction Licensing Strategy (CAMS)

- 5.135 The Environment Agency is responsible for managing water resources in England. The Environment Agency controls how much water is abstracted with a permitting system, regulating existing licences and granting new ones. It uses the CAMS process and abstraction licensing strategies to do this. The CAMS process aims to aid the meeting of the environmental objectives of the Water Framework Directive by:
- Providing a water resource assessment of rivers, lakes, reservoirs, estuaries and groundwater referred to as water bodies under the Water Framework Directive (WFD).
 - Identifying water bodies that fail flow conditions expected to support good ecological status.
 - Preventing deterioration of water body status due to new abstractions.
 - Providing results which inform River Basin Management Plans (RBMPs).
- 5.136 The Environment Agency can also address any unsustainable abstraction for public water supply through the AMP (Asset Management Plan) programme. Various schemes have been put forward to AMP 7 (2020-2025) for the water companies to ensure failing waterbodies achieve good status under the Water Framework Directive by 2027.
- 5.137 The entirety of Forest Heath area is located within the Cam and Ely Ouse abstraction area for which the most recent CAMS was published in 2013 with minor updates in 2017 (52). This area is broken down into five detailed areas which are covered individually within the strategy; Forest Heath area is located within four of these areas: Cam, Rhee and Granta; Ely Ouse; Snail, Lark and Kennett; and Wissey. The CAMS identifies that the main water resources pressures are extensive water supply abstraction along with river support schemes and water transfers.
- 5.138 The CAMS process has developed a classification system in order to inform the abstraction process. This classification provides an indication of:
- The relative balance between the environmental requirements for water and how much is licensed for abstraction.
 - Whether water is available for further abstraction.
 - Areas where abstraction may need to be reduced.
- 5.139 In terms of surface water across Forest Heath area, water is generally available for abstraction licensing during high flows ('Q30') but not available for licensing at low flows ('Q95'/'Q70'). In terms of groundwater, the entirety of Forest Heath lies on a chalk aquifer classified as:
- "Water not available for licensing; groundwater unit balance shows more water has been abstracted based on recent amounts than the amount available; no further consumptive licences will be granted."*
- 5.140 Where water abstractions cause or potentially cause environmental damage, existing licences may need to be revoked or changed in order to achieve a sustainable outcome. The CAMS identifies a number of designated sites (SAC/SPA/SSSI) where flows have fallen below the Environmental Flow Indicator (EFI). The relevant abstraction licences are therefore being assessed under the Environment Agency's Restoring Sustainable Abstraction (RSA) programme to assess impact and mitigation options. The CAMS identifies that all existing and new abstraction licences have been

or are currently being assessed in order to make sure they are not impacting nationally or internationally designated sites. Table 5.7 shows the nationally designated sites located within or in proximity to Forest Heath area and confirms that no changes to existing licences are currently required. The CAMS also states for Breckland SAC that *"The investigations for these sites are awaiting the implementation of changes to the GOGS [Great Ouse Groundwater Scheme] licences. No further licence changes proposed."* Since publication of the CAMS, the Environment Agency has confirmed (53) that the RSA project shown in Table 5.7 are now complete and that since these projects concluded that no licence changes are necessary, it agrees that abstraction within existing licence limits is acceptable and will not impact negatively on the conservation sites. It further states that any new consents/changes to existing consents that have a mechanism to impact a water dependent site will need assessing and may not be granted if impact is shown.

Table 5.7 Nationally designated sites investigated as part of the RSA programme (48) (51) (49) (53)

Site No.	Site Name	CAMS RSA Comments	Environment Agency update
8	Cavenham-Icklingham Heaths SSSI	Component of Fenland SAC, Ramsar site. No immediate licence changes proposed.	Habitats Directive Review of Consents Programme completed 2015. No licence changes but existing support scheme enhanced and on site water level management undertaken.
11	Chippenham Fen and Snailwell Poors Fen SSSI	Component of Fenland SAC. ROC implementation in progress – no licence changes proposed.	RSA investigation completed 2018. Surface water level management undertaken and conditions added to surface water licenses to maintain residual water level.
20	Lakenheath Poors Fen SSSI	No immediate licence changes proposed.	RSA investigation completed 2019. No licence changes necessary.

Assessment

- 5.141 The potential effects of development proposed by the SIR and SALP on water levels and flows will primarily be a function of the cumulative impact of all the proposed growth in each of the relevant catchments/RZs on water resources. The potential effects of the amount and distribution of growth proposed by the SIR and SALP were assessed by the Water Cycle Strategy (48) (49) (50), making reference to its findings (summarised above) on whether the growth can be supplied without increasing existing abstraction licences and whether changes to existing licences are being proposed by the Environment Agency to avoid harm to European sites or component SSSIs. The results of that assessment are presented in the HRA of the SIR rather than the HRA of the SALP since water quantity effects are considered likely to arise from the overall increase in water demand in the area, rather than site-specific development.
- 5.142 The Water Cycle Strategy (48) (49) (50) conducted a screening assessment for potential water quantity effects on European sites in consultation with Natural England and the Environment Agency and drawing on the contextual information summarised above, the results of which are presented in Table 5.8.

Table 5.8 Initial screening assessment in relation to water quantity

European sites	Proximity to closest development locations	Potential water quality effects
Breckland SAC, SPA	Mildenhall located within 500 m. Brandon is located within 1 km.	Taken forward for further assessment due to their proximity and relation to the impacted settlements.
Chippenham Fen Ramsar site	Newmarket located within 3 km. Exning located within 3 km. Red Lodge located within 5 km.	Taken forward for further assessment due to their proximity and relation to the impacted settlements.
Devil's Dyke SAC	Newmarket located within 3 km. Exning located within 3 km.	Water Cycle Strategy showed that the proposed development can be supplied without increasing

European sites	Proximity to closest development locations	Potential water quality effects
	km.	existing abstraction licences – potential for adverse effects on integrity ruled out.
Fenland SAC	Newmarket located within 50 km.	Water Cycle Strategy showed that the proposed development can be supplied without increasing existing abstraction licences – potential for adverse effects on integrity ruled out.
Norfolk Valley Fens SAC	Brandon located within 12 km.	Water Cycle Strategy showed that the proposed development can be supplied without increasing existing abstraction licences – potential for adverse effects on integrity ruled out.
Ouse Washes SAC, SPA and Ramsar site	Lakenheath located within 20 km.	Water Cycle Strategy showed that the proposed development can be supplied without increasing existing abstraction licences – potential for adverse effects on integrity ruled out.
Redgrave and South Lopham Fens Ramsar site	Mildenhall located within 33 km.	Water Cycle Strategy showed that the proposed development can be supplied without increasing existing abstraction licences – potential for adverse effects on integrity ruled out.
Rex Graham Reserve SAC	The Rex Graham Reserve is located within the Brecklands and was considered as part of the Breckland SAC/SPA assessment.	
The Wash & Norfolk Coast SAC/ The Wash SPA and Ramsar site	Lakenheath located within 40 km.	Water Cycle Strategy showed that the proposed development can be supplied without increasing existing abstraction licences – potential for adverse effects on integrity ruled out.
Wicken Fen Ramsar site	Exning located within 6 km.	Water Cycle Strategy showed that the proposed development can be supplied without increasing existing abstraction licences – potential for adverse effects on integrity ruled out.

- 5.143 The findings of the initial assessment therefore identified the potential for adverse effects on integrity, prior to mitigation, on Breckland SAC/SPA and Chippenham Fen Ramsar site.

Potential for in combination effects

- 5.144 The HRA of the SIR in relation to water quantity effects relies on the assessment within FHDC's Water Cycle Strategy of potential effects on European sites. This, in turn, draws on evidence from Anglian Water's Water Resources Management Plan (WRMP) 2015-2040, the Environment Agency's Cam and Ely Ouse Abstraction Licensing Strategy, and consultation with the Environment Agency and Natural England. These evidence sources consider all relevant water demand growth, not just demand from housing growth provided for by the SIR and SALP. For example, the WRMP estimates future non-household demand from current metered supplies, as adjusted for projected gross domestic product (GDP) growth.
- 5.145 In consultation with Anglian Water, the Water Cycle Strategy assumed demand for potable water from business will remain constant across the area for the foreseeable future. This is because demand growth from employment development is predicted to be offset by replacement of water-intensive industry with service industry over time.
- 5.146 In light of the above, any potential in combination effects from growth in neighbouring districts within the same catchments as Forest Heath area or from non-housing development provided by Policy CS 6 of the Forest Heath Core Strategy are accounted for.

Existing mitigation that could rule out adverse effects on integrity

- 5.147 Policy CS2 of the Core Strategy (see above) requires project level HRA for development proposals within the Breckland SPA HRA constraint zones. It further states that development likely to lead to an adverse effect on integrity will not be allowed.
- 5.148 Policy DM10 of the Joint Development Management Policies document states that proposals for development which would adversely affect the integrity of European sites will be determined in accordance with the Habitats Regulations.

- 5.149 However, it was deemed inappropriate to rely wholly on the generic protection offered by these policies in coming to a conclusion on the development proposed by the SIR since a high level assessment, appropriate to the HRA of a Local Plan, is possible at the plan-making stage.
- 5.150 The additional water needs of new development may be achievable within the headroom of existing water abstraction licences or may require new licences. The permitting system operated by the Environment Agency regulates existing abstraction licences and granting of new ones. The Environment Agency is in the process of reviewing currently permitted levels of abstraction that may be damaging to the environment and identifying measures to avoid such damage through its Restoring Sustainable Abstraction programme. It aims to complete this by March 2020. The Environment Agency also has a standard approach (Resource Assessment and Abstraction Licensing Strategies) to assessing the amount of water available for further abstraction, only granting a licence after the needs of the environment (and existing abstractors) are met.

Results

- 5.151 While the permitting system operated by the Environment Agency should prevent adverse effects on European sites, it is possible that such effects from the growth proposed by the SIR and SALP could arise due to additional abstraction within existing licences until the Restoring Sustainable Abstraction programme is completed. The more detailed assessment carried out by the Water Cycle Strategy in relation to potential water quantity effects on Breckland SAC/SPA and on Chippenham Fen Ramsar site are therefore presented below.

Breckland SAC and SPA

- 5.152 The Water Cycle Strategy reports that given Breckland SAC/SPA's large size it is understood to be fed from a number of sources – fluvial, surface and groundwater. The review of the Cam and Ely Ouse CAMS in Section 4 of the Water Cycle Strategy identified that no changes have been proposed to abstractions relating to Breckland as part of the Environment Agency's Restoring Sustainable Abstraction programme. In addition to this, during consultation with the Environment Agency and Natural England, no water supply issues that could lead to a detrimental impact were notified to the authors of the Water Cycle Strategy.
- 5.153 **Adverse effects on the integrity of Breckland SAC and SPA can be ruled out in relation to water quantity effects of the SIR and SALP or in combination with other relevant plans and projects.**

Chippenham Fen Ramsar site

- 5.154 The Water Cycle Strategy (48) (49) (50) reports that the water balance of Chippenham Fen has been the subject of much research and discussion in recent years but in general, it is supported by: rainfall, flows from Soham Lode/River Chippenham and springs from chalk aquifers below. Water is additionally supplemented through the Lodes Granta Groundwater Support Scheme.
- 5.155 The report 'A Wetland Framework for Impact Assessment of Statutory Sites in Eastern England' (54) was published by the Environment Agency with the aim of summarising some of the key features salient to understanding possible water supply mechanisms. The report describes the water supply of Chippenham Fen as follows:
- "The fen surface is fed primarily by rainfall (at least in summer) with some localised seepage of chalk water inwards from dykes and, in places, periodic summer flooding. The possibility of direct chalk water inputs is uncertain – even if these occur, the water table is (on average) well subsurface during the growing period. Rain fed surfaces probably remain base-rich on account of a highly calcareous peat and underlying clays (and perhaps because of episodic flooding)."*
- 5.156 Following review of the CAMS and WRMP, the Water Cycle Strategy identified that, as part of the Environment Agency's Restoring Sustainable Abstraction programme, the latest Chippenham Fen Review of Consents proposed no changes to the existing abstraction licence. It can therefore be concluded that current abstractions licences are not causing negative environmental effects.
- 5.157 In addition, as part of the Water Cycle Strategy, Natural England and the Environment Agency were consulted and both parties confirmed that the current mitigation schemes and licences were adequate for Chippenham Fen.

- 5.158 **Given the above information it can be concluded that, as the development trajectory can be supplied by Anglian Water within existing abstraction licences and no changes to these are required to protect designated sites, an adverse effect on the integrity of Chippenham Fen Ramsar site can be ruled out both from the SIR and SALP and in combination with other relevant plans and projects.**

Water quality

Potential effects of development

- 5.159 New development could result in increased volumes of treated wastewater discharges, resulting in nutrient enrichment of water and potential lowering of dissolved oxygen as well as increased water velocities and levels downstream of Water Recycling Centres (WRC) outfalls.
- 5.160 New development could also result in overloading of the combined sewer network during storm events with the potential for flooding and contamination of hydrologically connected European sites.
- 5.161 An increase in the area of urban surfaces and roads could increase the potential for contaminated surface runoff and the contamination of hydrologically connected European sites.

European sites potentially affected

- 5.162 The potentially affected European sites depend on the hydrological connections between those sites and the WRC discharge points and the combined sewer networks serving Forest Heath area. Site Improvement Plans for Breckland SAC/ SPA; for Fenland SAC/ Chippenham Fen Ramsar site; and for Redgrave and South Lopham Fens Ramsar site identify current pressure from poor water quality caused by nutrient enrichment but other scoped in European sites may be vulnerable to future water quality effects associated with planned growth. In consultation with Natural England and the Environment Agency, the Water Cycle Strategy (48) (49) (50) carried out an initial assessment for all of the scoped in European sites for potential water quality effects.

Context

Treated wastewater discharges

- 5.163 Anglian Water is responsible for wastewater treatment within Forest Heath area.
- 5.164 In consultation with Anglian Water, the Environment Agency and FHDC, the authors of the Water Cycle Strategy (48) (49) (50) examined the evidence in relation to the capacity of the area's WRCs to accept the higher volumes of sewage associated with the scale and distribution of growth proposed by the SIR and SALP and to treat it without deterioration in the water quality of receiving water courses. The results of the assessment of wastewater treatment capacity are summarised in Table 5.9 and show that an increased discharge beyond currently consented capacity is forecast for one WRC, Tuddenham, which serves the settlements of Tuddenham, Red Lodge and Herringswell.

Table 5.9 WRC treatment capacity

WRC (area served)	Currently consented discharge volume (m ³ /day)	Forecast volume in 2031 after provision of development in SIR/SALP (m ³ /day)	Water Cycle Strategy conclusion
Brandon (Brandon)	2,006	1,214	No constraints associated with Brandon WRC either in terms of treatment capacity or discharge capacity
Lakenheath (Lakenheath)	860	769	No constraints associated

WRC (area served)	Currently consented discharge volume (m ³ /day)	Forecast volume in 2031 after provision of development in SIR/SALP (m ³ /day)	Water Cycle Strategy conclusion
			with Lakenheath WRC either in terms of treatment capacity or discharge capacity
Mildenhall (Mildenhall, Beck Row and West Row)	3,900	2,846	No constraints associated with Mildenhall WRC either in terms of treatment capacity or discharge capacity
Newmarket (Newmarket, Kentford and Exning)	6,100	5,447	No constraints associated with Newmarket WRC either in terms of treatment capacity or discharge capacity
Tuddenham (Tuddenham, Red Lodge and Herringswell)	1,100	1,170	Existing discharge consent exceeded

Combined sewer overflows

- 5.165 The Water Cycle Strategy (48) (49) (50) reports that while detailed sewerage network models are not available for the majority of Forest Heath area, consultation with Anglian Water did not highlight significant sewerage capacity “show stoppers” or an increased risk of combined sewer overflows, although many of the site allocations in the SALP would be likely to require some local sewer network upgrades to accommodate the increased flow.

Contaminated surface runoff

- 5.166 The Water Cycle Strategy did not examine the potential for contaminated surface runoff from new built development to adversely affect European sites. It should, however, be possible to avoid such effects through the development management process via appropriate design features (for example provision of appropriately designed SUDS) and site layout (for instance separation of development from any adjacent water course by a buffer strip). As such, the Appropriate Assessment considered whether sufficient policy safeguards exist to secure any such measures that are necessary to protect water quality and European sites.

Assessment

Treated wastewater discharges

- 5.167 The Water Cycle Strategy (48) (49) (50) conducted an initial assessment (prior to consideration of mitigation) for potential water quality effects on European sites in consultation with Natural England and the Environment Agency and drawing on the contextual information summarised above, the results of which form the basis of Table 5.10. The table shows that the initial assessment ruled out the potential for adverse effects on integrity of all European sites other than Breckland SAC and SPA.

Combined sewer overflows

- 5.168 The Water Cycle Strategy identified that while there are no significant sewer network capacity issues associated with the proposed development that would represent “show stoppers”, many of the allocated sites would be likely to require some upgrades to accommodate the increased flows. The initial assessment presented in Table 5.10 assumed that if combined sewer overflows occurred, these would only be capable of significant effects on a European site if that site is within 5 km of the affected sewer network; this was judged to be a precautionary assumption. On this

basis, a potential for adverse effects on integrity was identified for Breckland SAC and SPA, Chippenham Fen Ramsar site, and Devil's Dyke SAC.

Contaminated surface runoff

- 5.169 As described above, no spatial analysis was carried out in relation to potential adverse effects on European sites from contaminated surface run-off as the potential risk was judged to be low and readily avoided by appropriate, site-specific mitigation. The initial screening was therefore limited to checking that appropriate mitigation can be required via policy safeguards – see 'Existing mitigation' section below.

Table 5.10 Initial assessment of water quality effects from wastewater discharges and combined sewer overflows, prior to mitigation

European sites	Potential water quality effects from treated wastewater discharges	Potential water quality effects from combined sewer overflows
Breckland SAC, SPA	<p>Brandon WRC, Mildenhall WRC and Tuddenham WRC are all within 1 km of European sites.</p> <p>Existing discharge consent will be exceeded at Tuddenham WRC due to scale of development proposed at Red Lodge. Mitigation for the potential adverse effect on integrity considered further below. Discharge consents will not be exceeded at Brandon WRC and Mildenhall WRC.</p>	<p>The sewers associated with Brandon, Mildenhall and Tuddenham are all in close proximity to European sites. Mitigation for the potential adverse water quality effect due to combined sewer overflows is considered below.</p>
Chippenham Fen Ramsar site	<p>Newmarket WRC is located within 2 km of European sites.</p> <p>Discharge consents will not be exceeded at Newmarket WRC; potential for adverse effects on integrity ruled out.</p>	<p>Newmarket sewers are located within 2 km. Mitigation for the potential adverse water quality effect due to combined sewer overflows is considered below.</p>
Devil's Dyke SAC	<p>Newmarket WRC is located within 3 km of European sites.</p> <p>Discharge consents will not be exceeded at Newmarket WRC; potential for adverse effects on integrity ruled out.</p>	<p>Newmarket sewers are located within 3 km. Mitigation for the potential adverse water quality effect due to combined sewer overflows is considered below.</p>
Fenland SAC	<p>Newmarket WRC is located within 44 km of European sites.</p> <p>Discharge consents will not be exceeded at Newmarket WRC; potential for adverse effects on integrity ruled out.</p>	<p>No sewers within 5 km of European sites; potential for adverse effects on integrity ruled out.</p>
Norfolk Valley Fens SAC	<p>Brandon WRC is located within 12 km of European sites.</p> <p>Discharge consents will not be exceeded at Brandon WRC; potential for adverse effects on integrity ruled out.</p>	<p>No sewers within 5 km of European sites; potential for adverse effects on integrity ruled out.</p>
Ouse Washes SAC, SPA and Ramsar site	<p>Lakenheath WRC is located within 20 km of European sites.</p> <p>Discharge consents will not be exceeded at Lakenheath WRC; potential for adverse effects on integrity ruled out.</p>	<p>No sewers within 5 km of European sites; potential for adverse effects on integrity ruled out.</p>
Redgrave and South Lopham Fens Ramsar site	<p>Mildenhall WRC is located within 33 km of European sites.</p> <p>Discharge consents will not be exceeded at Mildenhall WRC; potential for adverse effects on integrity ruled out.</p>	<p>No sewers within 5 km of European sites; potential for adverse effects on integrity ruled out.</p>
Rex Graham Reserve SAC	<p>Rex Graham Reserve SAC is located within the Breckland SAC and SPA and was considered as part of the assessment for those designations.</p>	
The Wash & Norfolk Coast SAC/ The Wash SPA and Ramsar site	<p>Lakenheath WRC is located within 40 km of European sites.</p> <p>Discharge consents will not be exceeded at Lakenheath WRC; potential for adverse effects on integrity ruled out.</p>	<p>No sewers within 5 km of European sites; potential for adverse effects on integrity ruled out.</p>
Wicken Fen Ramsar site	<p>Newmarket WRC is located within 8 km of European sites.</p> <p>Discharge consents will not be exceeded at Newmarket WRC, therefore there will be no impact on water quality; potential for adverse effects on integrity ruled out.</p>	<p>No sewers within 5 km of European sites; potential for adverse effects on integrity ruled out.</p>

Potential for in combination effects

- 5.170 The Appropriate Assessment of the SIR in relation to water quality effects relies on the assessment within FHDC's Water Cycle Strategy of potential effects on European sites. The authors of the Water Cycle Strategy consulted with Anglian Water and the Environment Agency to determine the capacity of Water Recycling Centres (WRC) serving Forest Heath area to accept the higher volumes of sewage associated with the scale and distribution of growth proposed by the SIR and SALP and to treat it without deterioration in the water quality of receiving water courses. It also considered whether the proposed development would result in any insurmountable sewer network capacity issues. These capacity assessments considered all relevant growth within the catchments of the WRCs, not just housing growth provided for by the SIR and SALP.
- 5.171 In consultation with Anglian Water, the authors of the Water Cycle Strategy determined that it was not necessary to consider the employment development provided for by the adopted Forest Heath Core Strategy as the workers will mostly already have been included within population estimations in the development trajectory. As such, any potential in combination effects from employment development provided by Core Strategy Policy CS6 are already accounted for in the Appropriate Assessment of the SIR. Tourism development under CS6 is judged unlikely to result in significant additional capacity pressure on WRCs and the sewer network and since CS6 and the SALP do not specify where such development will occur, any potential in combination effects are, in any case, more appropriately assessed via project level HRA.

Existing mitigation that could rule out adverse effects on integrity

- 5.172 Policy CS2 of the Core Strategy (see above) requires project level HRA for development proposals within the Breckland SPA HRA constraint zones. It further states that development likely to lead to an adverse effect on integrity will not be allowed.
- 5.173 Policy DM10 of the Joint Development Management Policies document states that proposals for development which would adversely affect the integrity of European sites will be determined in accordance with the Habitats Regulations.
- 5.174 However, it was deemed inappropriate to rely wholly on the generic protection offered by these policies in coming to a conclusion on the development proposed by the SIR since a high level assessment, appropriate to the HRA of a Local Plan, is possible at the plan-making stage.

Treated wastewater discharges

- 5.175 More specific mitigation is available as follows:
- Core Strategy Policy CS13: requirement for sufficient capacity in existing local infrastructure before land is released for development and to gather developer contributions to improve infrastructure to the required standard. One of the main areas to be addressed is:
 - *"Providing for additional strategic waste water treatment capacity in accordance with Strategic Flood Risk Assessment and Water Cycle Study. This waste water infrastructure will be upgraded as required and operational in time to meet the demands of the development;"*
 - Development Management Policy DM14: all development proposals should ensure no deterioration to water quality and development will not be permitted where, individually or cumulatively, there are likely to be unacceptable impacts on the natural environment or surface and groundwater quality.
 - The volume and quality of treated wastewater discharges from WRCs to receiving water courses is subject to regulation by the Environment Agency via the grant and review of environmental permits. This Environmental permitting regime operated by the Environment Agency should ensure that any development requiring variation in the discharge consent for a WRC does not result in deterioration in downstream water quality as a result of that variation.

Combined sewer overflows

- 5.176 More specific mitigation is available as follows:

- Core Strategy Policy CS13: requirement for sufficient capacity in existing local infrastructure before land is released for development and to gather developer contributions to improve infrastructure to the required standard.
- Development Management Policy DM6: requirement for all new development to manage on-site drainage, for example by use of Sustainable Drainage Systems (SUDS).
- Development Management Policy DM14: all development proposals should ensure no deterioration to water quality and development will not be permitted where, individually or cumulatively, there are likely to be unacceptable impacts on the natural environment or surface and groundwater quality.

Contaminated surface runoff

5.177 More specific mitigation is available from the following policies in the adopted Joint Development Management Policies Document:

- Development Management Policy DM6: requirement for all new development to manage on-site drainage, for example by use of Sustainable Drainage Systems (SUDS).
- Development Management Policy DM14: all development proposals should ensure no deterioration to water quality and development will not be permitted where, individually or cumulatively, there are likely to be unacceptable impacts on the natural environment or surface and groundwater quality.

Results

Treated wastewater discharges

- 5.178 As the Water Cycle Strategy determined that Tuddenham WRC would exceed existing discharge consents it went on to examine the implications for water quality in the receiving watercourse. This was identified as Tuddenham Stream which flows through Breckland SAC/SPA.
- 5.179 The current strategy to achieve Water Framework Directive (WFD) targets in the Anglian region is set out in a River Basin Management Plan (55). Under the WFD, Anglian Water must ensure 'No Deterioration' in current quality of the receiving watercourse as a minimum; Tuddenham Stream is currently assessed as having 'Moderate' WFD ecological potential and 'Good' WFD chemical status. WFD requirements to improve towards Good status (particularly if the growth is not the primary reason for failure) are subject to technical feasibility and assessment of whether costs would be disproportionate.
- 5.180 The industry regulator, Ofwat, has already confirmed funding for Anglian Water to improve the treatment process at Tuddenham WRC to achieve tighter permitted limits for ammonia and phosphorus concentrations in discharges by 1 April 2018 to ensure 'No Deterioration'. The Water Cycle Strategy confirmed that the achievement of all relevant WFD requirements is not compromised by the proposed growth, i.e. that the already-planned tightening of treatment standards by April 2018 will be sufficient to ensure No Deterioration in water quality for Tuddenham Stream.

Combined sewer overflows

- 5.181 Following review of Anglian Water asset datasets and consultation with Anglian Water, the Water Cycle Strategy (48) (49) (50) concluded that the sewerage network presents no constraint to the proposed development. This was based on the fact that Anglian Water regards connection to combined sewers as a last resort for surface water drainage and encourages developers to consult it as early as possible during the planning process to identify potential alternatives (e.g. infiltration via a SUDS system or connection to a watercourse or storm sewer) or, where these are not possible, to agree any combined sewer network upgrades that are required. It was judged that the mitigation policies outlined above provide sufficient certainty that any sewer network upgrades required by new development will be provided and adverse effects on integrity were therefore ruled out.

Contaminated surface runoff

- 5.182 It was judged that any potential adverse water quality effects of contaminated surface runoff on European sites could be ruled out by reliance on the relevant development management policies (see 'Existing mitigation' above) to secure any necessary site-specific avoidance measures.
- 5.183 **The growth planned by the SIR and SALP will not, therefore, have adverse effects on the integrity of any European site in relation to water quality, either alone or in combination with other plans and projects.**

Air quality

Potential effects of development

- 5.184 Air pollution arising from new or more congested roads as a result of new development could result in toxic contamination or nutrient enrichment of sensitive habitats.

European sites potentially affected

- 5.185 Based on a review of the designated features of the scoped-in European sites and the documented pressures and threats facing them, the potentially affected European sites were identified as:
- Breckland SAC and SPA.
 - Devil's Dyke SAC.
 - Fenland SAC, Chippenham Fen Ramsar site, and Wicken Fen Ramsar site.
 - Norfolk Valley Fens SAC.
 - Rex Graham Reserve SAC.

Context

- 5.186 The Design Manual for Roads and Bridges (DMRB) (56) provides scoping criteria for the assessment of local air quality effects from development projects that are likely to affect road traffic and states that only designated sites within 200 m of roads affected by the project need be considered. The DMRB scoping criteria indicate that more detailed environmental assessment of local air quality effects on sensitive designated sites within 200 m is appropriate if any of the following criteria are met:
- Daily traffic flows will change by 1,000 AADT or more.
 - Heavy Duty Vehicle (HDV) flows will change by 200 AADT or more.
 - Daily average speed will change by 10 km/hr or more.
 - Peak hour speed will change by 20 km/hr or more.
- 5.187 In addition, areas within the 200 m zone of influence around designated sites likely to experience higher-than-average pollution concentrations, such as tunnel portals, roundabouts and junctions, should be identified.
- 5.188 More detailed information on the sensitivity of the SACs listed at paragraph 5.185 above was obtained from the 'Atmospheric nitrogen theme plan' for improvement of England's Natura 2000 sites (57). The theme plan reports the sensitivity of the sites' designated features to atmospheric nitrogen, the level of critical load exceedance of the most sensitive designated features, the likelihood of atmospheric nitrogen impacts, and whether emissions from local agriculture as opposed to traffic and other sources are likely to be a significant factor, as summarised in Table 5.11.

Table 5.11 Sensitivity of SACs to atmospheric nitrogen (N)

SAC name	Sensitivity to atmospheric N	Level of critical load exceedance	Likelihood of N impact	Relevance of local agricultural ammonia sources	Potential significance of measures to reduce local agricultural ammonia
Breckland	Very sensitive	Very high	Very likely	High	High
Devil's Dyke	Sensitive	Moderate	Likely	Low	Low
Fenland	Less sensitive, potentially sensitive	Moderate	Uncertain	Medium	Low
Norfolk Valley Fens	Very sensitive	Very high	Very likely	High	High
Rex Graham Reserve	Sensitive	Moderate	Likely	Medium	Medium

5.189 SPAs and Ramsar sites are not covered by the theme plan but the Appropriate Assessment considers them for the following reasons:

- Breckland SPA – Standard Data Form includes threat and pressure code H04 (Air pollution, air-borne pollutants); Site Improvement Plan for Breckland SAC and SPA identifies atmospheric nitrogen deposition as a potential future threat to stone curlew and woodlark designated features and the need for further investigation.
- Chippenham Fen and Wicken Fen Ramsar sites - Site Improvement Plan for Fenland SAC, Chippenham Fen Ramsar site, and Wicken Fen Ramsar site identifies atmospheric nitrogen deposition as a pressure or threat to the purple moor-grass meadows and calcium rich fen interest features of the SAC, purple moor-grass also being identified by both Ramsar Information sheets.

5.190 The above information indicates that all of the European sites identified at para. 5.185 are vulnerable to increased nitrogen inputs. Fenland SAC is only rated as 'potentially sensitive', with the potential impact of atmospheric nitrogen 'uncertain' but was scoped into the HRA on a precautionary basis. Whilst agricultural emissions are clearly judged to be a significant source of nitrogen inputs to some of the SACs, additional nitrogen inputs from road traffic emissions would be likely to result in further exceedance of critical loads.

Assessment

5.191 Potential air quality effects are set out in the HRA of the SIR rather than in the HRA of the SALP since changes in traffic flows will depend on the combined effects of all development proposed by the SIR and SALP in combination with that associated with other relevant plans and projects rather than individual allocations.

Proximity of sensitive European sites to major roads

5.192 Consideration was first given to whether the sensitive European sites were within 200 m of a major road (A11, A14 or A47 trunk roads or a non-trunk A-road) that could potentially see a significant increase in traffic as result of the development proposed by the SIR and SALP.

5.193 This information is set out in Table 5.12.

Table 5.12 European sites sensitive to air pollution and their proximity to major roads

European site	Relationship to major roads	Conclusion
Breckland SAC	Various elements of the SAC within the area are within 200 m of: A1065 between Little Eriswell and Brandon	Further assessment of traffic growth on these roads is required

European site	Relationship to major roads	Conclusion
	A11 between junctions with B1112 and B1106 A1101 between Mildenhall and junction with B1112	
Breckland SPA	The following major roads pass through or within 200 m of large parts of the SPA: A1065 between Mildenhall and Brandon A11 between Mildenhall and Thetford A1101 between Mildenhall and Bury St Edmunds Section of A14 just outside District boundary to west of Risby	Assessment of traffic growth on these roads is required
Devil's Dyke SAC	North west end of SAC is within 200 m of A14 where it crosses District boundary west of Newmarket South east end of SAC is within 200 m of A1304 where it crosses District boundary south west of Newmarket	Devil's Dyke is a linear site that lies perpendicular to the A14 and A1304; this and the fact that the northern end of the SAC is approximately 140 m from the A14 limit the exposure of the European site to air pollution from these roads, such that the potential for adverse effects on integrity can be ruled out
Fenland SAC	No A-roads within 200 m	The potential for adverse effects on integrity can be ruled out
Chippenham Fen Ramsar site	No A-roads within 200 m	The potential for adverse effects on integrity can be ruled out
Wicken Fen Ramsar site	No A-roads within 200 m	The potential for adverse effects on integrity can be ruled out
Norfolk Valley Fens SAC	No A-roads within 200 m	The potential for adverse effects on integrity can be ruled out
Rex Graham Reserve SAC	All of site is within 200 m of A11 between Mildenhall and A11 junction with B1112 (site is located within Breckland SAC)	Further assessment of traffic growth on these roads is required

- 5.194 Table 5.12 indicates the need for further consideration of air quality effects on Breckland SAC (including Rex Graham Reserve SAC) and Breckland SPA. This was carried out by AECOM and the results are presented in a separate report (58) which forms part of the HRA of the SIR and SALP. The conclusion of that work is reproduced below for ease of reference.
- 5.195 **The conclusions of the HRA of the SIR and SALP in relation to air quality effects are presented in a separate report prepared by AECOM (58). That report concludes that “no adverse effect on Breckland SAC, SPA or Rex Graham Reserve SAC is expected to occur from growth in [the former] Forest Heath District Council alone, or in combination with other projects and plans”.**

6 Conclusions

- 6.1 The HRA screening of the SIR was unable to rule out likely significant effects from the Plan either alone or in combination with other plans and projects, in relation to the following types of effects:
- Direct loss or physical damage due to construction.
 - Disturbance and other urban edge effects from construction or occupation of buildings.
 - Disturbance from construction or operation of roads.
 - Recreational pressure.
 - Water quantity.
 - Water quality.
 - Air quality.
- 6.2 The European sites potentially affected by these types of effect are shown in Table 6.1.

Table 6.1 European sites for which likely significant effects not ruled out

SAC	SPA	Ramsar site
Sites lying wholly or partly within Forest Heath area		
Breckland Devil's Dyke Rex Graham Reserve	Breckland	-
Sites lying outside Forest Heath area but wholly or partly within 20 km of its boundary		
Fenland Norfolk Valley Fens Ouse Washes	Ouse Washes	Chippenham Fen Ouse Washes Redgrave and South Lopham Fens Wicken Fen
Sites lying entirely beyond 20 km of the Forest Heath area boundary but scoped into HRA due to hydrological connection		
The Wash and North Norfolk Coast	The Wash	The Wash

- 6.3 An Appropriate Assessment was therefore carried out to identify whether there would be an adverse effect on the integrity of any of these European sites as a result of any of the above types of effect.
- 6.4 **Appropriate Assessment was able to rule out an adverse effect on the integrity of any European site from the SIR, either alone or in combination with other relevant plans and projects.**

Works cited

1. **UK Government.** *The Conservation (Natural Habitats, &c.) (Amendment) Regulations 2007. (SI 2007/1843).* s.l. : HMSO, 2007.
2. —. *The Conservation of Habitats and Species Regulations 2017 (SI No. 2017/1012).* London : The Stationery Office, 2017.
3. **European Council.** *Council Directive 2009/147/EC of 30 November 2009 on the conservation of wild birds (the codified version of Council Directive 79/409/EEC, as amended).* s.l. : European Council, 2009.
4. **European Commission.** *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.* Brussels : European Commission, 2001.
5. **DCLG.** *Planning for the Protection of European Sites: Appropriate Assessment.* London : DCLG Publications, 2006. Consultation Document.
6. **RSPB.** *The Appropriate Assessment of Spatial Plans in England. A guide to why, when and how to do it.* s.l. : RSPB, 2007.
7. **Forest Heath District Council.** *Habitat Regulations Assessment: Forest Heath District Council Core Strategy Development Plan Document .* s.l. : Forest Heath District Council, 2009.
8. **European Commission.** *Opinion of Advocate General Kokott in case C-6/04 European Commission v United Kingdom delivered on 9 June 2005.* 2005.
9. **UK Government.** *The Conservation of Habitats and Species Regulations 2017 (SI No. 2017/1012).* London : The Stationery Office, 2017.
10. **Sharp, J., et al., et al.** *The effect of housing development and roads on the distribution of Stone Curlews in the Brecks.* Wareham, Dorset : Footprint Ecology, 2008.
11. **Clarke, R.T., Liley, D. and Sharp, J.** *Assessment of visitor access effects and housing on nightjar numbers on the Thames Basin Heaths and Dorset Heaths SPAs.* s.l. : Footprint Ecology for Natural England, 2008.
12. *The impact of urban development and human disturbance on the numbers of nightjar (Caprimulgus europaeus) on heathlands in Dorset, England.* **Liley, D. and Clarke, R.T.** 114, 2003, Biological Conservation, pp. 219-230.
13. **Liley, D. and Clarke, R.T.** *Urban development adjacent to heathland sites in Dorset: the effect on the density and settlement patterns of Annex I bird species.* *English Nature Report.* Peterborough : English Nature, 2002.
14. **Liley, D., et al., et al.** *The effect of urban development and human disturbance on the distribution and abundance of nightjars on the Thames Basin and Dorset Heaths.* s.l. : Natural England and Footprint Ecology, 2006.
15. **Mallord, J.W.** *Predicting the consequences of human disturbance, urbanisation and fragmentation for a woodlark population.* Norwich : UEA, 2005.
16. **Clarke, R. and Liley, D.** *Further assessments of the relationship between buildings and stone curlew distribution.* Wareham, Dorset : Footprint Ecology for Breckland Council, 2013.
17. *Predation of wildlife by domestic cats Felis catus in Great Britain.* **Woods, M., McDonald, R.A. and Harris, S.** 2003, Mammal Review, Vol. 33, pp. 174-188.
18. *Avian assemblage structure and domestic cat densities in urban environments.* **Sims, V., et al., et al.** 2008, Diversity and Distributions, Vol. 14, pp. 387-399.

19. **Taylor, E.** *Predation risk in woodlark *Lullula arborea* habitat: the influence of recreational disturbance, predator abundance, nest site characteristics and temporal factors.* s.l. : School of Biological Sciences, UEA, 2002.
20. *Corvid responses to human settlements and campgrounds: causes, consequences and challenges for conservation.* **Marzluff, J.M. and Netherlin, E.** 2006, *Biological Conservation*, Vol. 130, pp. 301-314.
21. **Day, T.C.F.** *The effects of disturbance from roads on stone curlews in southern England.* Cambridge : Darwin College, University of Cambridge, 2003.
22. *Habitat selection, ranging behaviour and diet of the stone curlew (*Burhinus oedicephalus*).* **Green, R.E., Tyler, G.A. and Bowdne, C.G.R.** 2000, *Journal of Zoology*, Vol. 250, pp. 161-183.
23. *Building Development and Roads: Implications for the Distribution of Stone Curlews across the Brecks.* **Clarke, Ralph T, et al., et al.** 8, s.l. : PLOS ONE, 2013, Vol. 8.
24. **AECOM Infrastructure & Environment UK Ltd.** *Forest Heath District Council Site Allocation Plan Cumulative Impact Study.* s.l. : Forest Heath District Council, 2016.
25. —. *Forest Heath District Council Site Allocation Plan Cumulative Impact Study - Addendum.* s.l. : Forest Heath District Council, 2016.
26. **AECOM.** *Forest Heath District Council Site Allocation Plan Cumulative Impact Study - Addendum.* s.l. : Forest Heath District Council, 2018.
27. **Mouchel.** *A11 Improvement Options.* s.l. : Unpublished report for Suffolk County Council, 2016.
28. *Nightjar (*Caprimulgus europaeus*) and Woodlark (*Lullula arborea*)- recovering species in Britain?* **Langston, R.H.W., et al., et al.** 149, 2007, *Ibis*, pp. 250-260.
29. *Stone Curlews and recreational disturbance: developing a management tool for access.* **Taylor, E.C., Green, R.E. and Perrins, J.** 149, 2007, *Ibis*, pp. 37-44.
30. *Birdconservation and access: coexistence or compromise?* **Langston, R., Drewitt, A. and Liley, D.** 2007, *British Wildlife*, Vol. 19, pp. 1-9.
31. *What effects do walkers and dogs have on the distribution and productivity of breeding European Nightjar?* **Langston, R.H.W., et al., et al.** 2007, *Ibis*, Vol. 149, pp. 27-36.
32. **Murison, G.** *The impact of human disturbance on the breeding success of nightjar on heathlands in South Dorset.* Peterborough : English Nature, 2002.
33. **Woodfield, E. and Langston, R.H.** *A study of the effects on breeding nightjars of access on foot to heathland.* Peterborough : English Nature, 2004.
34. *Quantifying density dependence in a bird population using human disturbance.* **Mallord, J.W., et al., et al.** 2007, *Oecologia*, Vol. 153, pp. 49-56.
35. *Linking recreational disturbance to population size in a ground nesting passerine.* **Mallord, J.W., et al., et al.** 2006, *Journal of Applied Ecology*, Vol. 44, pp. 185-195.
36. **Liley, D, Hoskin R, Underhill-Day, J and D, Tyldesley.** *Habitats Regulations Assessment: Breckland Council Submission Core Strategy and Development Control Policies Document.* Wareham, Dorset : Footprint Ecology for Breckland District Council, 2008.
37. **Dolman, P., Lake, I.R. and Bertonecelj, I.** *Visitor flow rate and recreational flow modelling in Breckland.* Norwich : UEA, 2008.
38. **Sharp, J., Lowen, J. and Liley, D.** *Recreational pressure on the New Forest National Park, with particular reference to the New Forest SPA.* s.l. : Footprint Ecology/New Forest National Park Authority, 2008.
39. **Fearnley, H., Liley, D. and Cruickshanks, K.** *Visitor survey results from Breckland SPA.* Wareham, Dorset : Footprint Ecology, 2010.
40. **Breckland District Council.** *HRA for Site Specific Policies and Proposals DPD.* 2010.
41. **Natural England.** Personal communication with Francesca Shapland, Lead Adviser, Planning & Conservation, Norfolk & Suffolk Team. 11 February 2016.

42. —. Designated Sites View. [Online] no date. [Cited: 14 November 2016.] <https://designatedsites.naturalengland.org.uk/>.
43. **Forest Heath District Council.** *Core Strategy DPD*. 2010.
44. —. *Supplementary Planning Document for Open Space, Sport and Recreation Facilities*. s.l. : Forest Heath District Council, 2011.
45. **Forest Heath District and St Edmundsbury Borough Councils.** *Forest Heath and St Edmundsbury Local Plan Joint Development Management Policies Document*. 2015.
46. **Forest Heath District Council.** *Accessible Natural Greenspace Study: Evidence paper for Single Issue Review (SIR) of Core Strategy Policy CS7 and Site Allocations Local Plan*. 2017.
47. **Cambridgeshire Research Group.** *Forest Heath Objectively Assessed Housing Need*. 2016.
48. **Arcadis.** *Forest Heath Water Cycle Strategy Update Stage 3 Final Report*. s.l. : Forest Heath District Council, 2016.
49. —. *Stage 3 Forest Heath WCS Update - December 2016 Addendum*. s.l. : Forest Heath District Council, 2016.
50. —. *Forest Heath WCS Update - Addendum April 2018*. 2018.
51. **Anglian Water Services.** *Water Resources Management Plan 2015*. Huntingdon : Anglian Water Services, 2015.
52. **Environment Agency.** *Cam and Ely Ouse Abstraction Licensing Strategy*. Bristol : Environment Agency, 2017.
53. —. *Response to consultation on April 2019 HRA of SIR dated 21 June 2019*. 2019.
54. **Wheeler, B D and Shaw, S C.** *A Wetland Framework for Impact Assessment at Statutory Sites in Eastern England: Site Accounts*. Bristol : Environment Agency, 2000. ISBN: 1 8570 5563 2.
55. **Environment Agency.** *Anglian river basin district river basin management plan*. s.l. : Defra, 2015.
56. **Department for Transport.** *Design Manual for Roads and Bridges Volume II Environmental Assessment Section 3 Environmental Assessment Techniques HA207/07*. 2007.
57. **Natural England and partners.** *Atmospheric nitrogen theme plan: Developing a strategic approach for England's Natura 2000 sites*. s.l. : Natural England, 2015.
58. **AECOM Infrastructure & Environment UK Ltd.** *Forest Heath District Council, Single Issue Review of CS7 and Site Allocations Local Plan - Updated Air Quality Assessment Regarding Breckland SAC, Breckland SPA and Rex Graham Reserve SAC*. s.l. : Unpublished report for FHDC, 2019.
59. **Breckland District Council.** *HRA for Site Specific Policies and Proposals DPD*. 2010.
60. **Liley, Durwyn.** *Stone Curlew Buffers in the Brecks*. s.l. : Footprint Ecology, 2016.
61. **Dodd A.M., Cleary B.E., Dawkins J.S., Byron H.J., Palframan L.J. and Williams G.M.** *The Appropriate Assessment of Spatial Plans in England. A guide to why, when and how to do it*. Sandy : The RSPB, 2007.
62. **DEFRA.** *The Habitats and Wild Birds Directives in England and its seas: Core guidance for developers, regulators & land/marinen managers (Consultation Document)*. 2012.
63. **ODPM.** *Biodiversity and Geological Conservation - Statutory obligations and their impact within the planning system*. Norwich : TSO (The Stationery Office), 2005.
64. **Natural England.** *Draft Guidance: The Habitats Regulations Assessment of Regional Spatial Strategies and Sub-Regional Strategies*. Peterborough : Natural England, 2007.
65. *Foraging by nightjars *Caprimulgus europaeus* away from their nesting areas.* **Alexander, I. and Cresswell, B.** 1990, *Ibis*, Vol. 132, pp. 568-574.
66. *Studies on the invertebrate fauna of fragmented heathland in Dorset, UK, and the implications for conservation.* **Webb, N.R.** 1989, *Biological Conservation*, Vol. 47, pp. 153-165.
67. *Changes in vegetational diversity on remnant heathland fragments.* **Webb, N.R. and Vermaat, A.H.** 1990, *Biological Conservation*, Vol. 53, pp. 253-264.

68. *Changes in the heathlands of Dorset, England, between 1978 and 1987.* **Webb, N.R.** 1990, Biological Conservation, Vol. 51, pp. 273-286.
69. **Webb, N.R. and Thomas, J.A.** Conserving insect habitats in heathland biotopes: a question of scale. [ed.] P.J. Edwards, R.M. May and N.R. Webb. *Large-scale processes and conservation biology.* Oxford : Blackwell Scientific Publications, 1994, pp. 129-151.
70. **Erritzoe, J.** *Bird traffic casualties and road quality for breeding birds: A summary of existing papers with a bibliography.* 2002.
71. *Disturbance by traffic of breeding birds: evaluation of the effect and considerations in planning and managing road corridors.* **Reijnen, R., Fopper, R. and Veenbaas, G.** 1997, Biodiversity and Conservation, Vol. 6, pp. 567-581.
72. *Linear barriers to arthropod movements in the landscape.* **Mader, H.J., Schell, C. and Kornacker, P.** 1990, Biological Conservation, Vol. 54, pp. 209-222.
73. **Armitage, P., Blackburn, J.H. and Symes, K.L.** *The environmental quality of a small urban water course, the Bourne Stream (Dorset), assessed with macroinvertebrate density.* Wareham, Dorset : Institute of Freshwater Ecology, 1994.
74. *The effects of air-borne nitrogen pollutants on species diversity in natural and semi-natural European vegetation.* **Bobbink, R., Hornung, M. and Roelofs, J.G.M.** 1998, Journal of Ecology, Vol. 86, pp. 717-738.
75. *The impact of a road upon adjacent heathland vegetation: effects on plant species composition.* **Angold, P.G.** 1997, Journal of Applied Ecology, Vol. 34, pp. 409-417.
76. *Ecological impacts of air pollution from road transport on local vegetation.* **Signal, K.L., et al., et al.** 2007, Applied Geochemistry, Vol. 22, pp. 1265-1271.
77. *Soil phosphorous as an indicator of canine faecal pollution in urban recreation areas.* **Bonner, C. and Agnew, A.D.Q.** 1983, Environmental Pollution (Series B), Vol. 6, pp. 145-156.
78. **Taylor, K., et al., et al.** *Dogs, access and nature conservation. Research Report.* Peterborough : English Nature, 2005.
79. **Liley, D.** *Human impacts on the Castle Bottom to Yateley Common and Hawley Commons SSSI, Hampshire.* s.l. : RSPB, 2004.
80. **Kirby, J.S. and Tantrum, D.A.S.** *Monitoring heathland fires in Dorset: Phase 1 Report to DETR.* Northampton : Terra Environmental Consultancy, 1999.
81. *Responses to severe fires in heathland mosaics in southern England.* **Bullock, J.M. and Webb, N.R.** 1994, Biological Conservation, Vol. 73, pp. 207-214.
82. *Do Dorset heaths have a future? Sixth National Heathland Conference.* **Woods, N.I.E.P.o.t.** Sandy, Bedfordshire : RSPB, 2002.
83. **Hyder Consulting.** *Level 1 SFRA and Outline Water Cycle Study.* s.l. : Forest Heath District Council and St Edmundsbury Borough Council, 2009.
84. **Anglian Water Services.** *Water Resources Management Plan - Draft for Consultation.* s.l. : Anglian Water Services, 2008.
85. *Effects of habitat management on heathland response to atmospheric nitrogen deposition.* **Barker, C.G., et al., et al.** 2004, Biological Conservation, Vol. 120, pp. 41-52.
86. *Interactive effects of nitrogen deposition, fire and grazing on diversity and composition of low-apline prostrate *Calluna vulgaris* heathland.* **Britton, A.J. and Fisher, J.M.** 2007, Journal of Applied Ecology, Vol. 44, pp. 125-135.
87. *Impacts and fate of experimentally enhanced nitrogen deposition on a British lowland heath.* **Power, S.A., Ashmore, M.R. and Cousins, D.A.** 1998, Environmental Pollution, Vol. 102, pp. 27-34.
88. **Gilbert, O.L.** *Lichen survey of selected Breckland SSSIs: English Nature Reserach Report.* Peterborough : English Nature, 2002.
89. **Hyder Consulting.** *Forest Heath District Council Water Cycle Study Stage 2: Full Strategy.* Aston : Hyder Consulting for Forest Heath District Council, 2011.

90. —. *Forest Heath District Council Level 2 Strategic Flood Risk Assessment*. Aston : Hyder Consulting for Forest Heath District Council, 2011.
91. **Mott MacDonald**. *Anglian Water 2015 Water Resource Management Plan Habitats Regulations Assessment: Task 1 & 2*. Cambridge : Mott MacDonald, 2013.
92. **Suffolk County Council**. *Suffolk Local Transport Plan 2011-2031*. s.l. : Suffolk County Council, 2011.
93. —. *The Conservation of Habitats and Species Regulations 2010 Regulation 61 assessment for Suffolk Local Transport Plan 3*. Ipswich : Suffolk County Council, 2011.
94. **Forest Heath District Council**. *Supplementary Planning Document for Open Space, Sport and Recreation Facilities*. s.l. : Forest Heath District Council, 2011.
95. **Cambridge Insight**. *Strategic Housing Market Assessment for the Cambridge housing sub-region*. 2013.
96. **David Tyldesley Associates**. *Habitats Regulations Appraisal of Plans: Guidance for plan-making bodies in Scotland*. s.l. : Scottish Natural Heritage, 2015.
97. **Hyder Consulting**. *Red Lodge Wastewater Treatment/Sewerage Capacity Study: Independent study report*. s.l. : Forest Heath District Council, 2014.
98. **Forest Heath District Council**. *Accessible Natural Greenspace Study: Evidence paper for Single Issue Review (SIR) of Core Strategy Policy CS7 and Site Allocations Local Plan*. 2016.
99. **DCLG**. Called-in decision: land at Hatchfield Farm, Fordham Road, Newmarket (ref: 2222871 - 1 September 2016). [Online] 31 8 2016. [Cited: 21 11 2016.]
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/549302/16-08-31_DL_IR_Hatchfield_Farm_2222871.pdf.
100. **Natural England**. *Analysis of Accessible Natural Greenspace Provision for Suffolk*. 2010.
101. **Forest Heath District Council**. *Single Issue Review (SIR) & Site Allocations Local Plan (SALP): Settlement Boundary Review*. 2016.
102. *Long term effects of enhanced nitrogen deposition on a lowland dry heath in southern Britain*. **Power, S.A., et al., et al.** 1995, *Water, Air and Soil Pollution*, Vol. 85, pp. 1701-1706.
103. *Modelling the impacts of atmospheric nitrogen deposition on Calluna-dominated ecosystems in the UK*. **Terry, A.C., et al., et al.** 2004, *Journal of Applied Ecology*, Vol. 41, pp. 897-909.
104. *Long term effects of enhanced nitrogen deposition on a lowland dry heath in southern Britain*. **Power, S.A., et al., et al.** 1995, *Water, Air and Soil Pollution*, Vol. 85, pp. 1701-1706.
105. *Modelling the impacts of atmospheric nitrogen deposition on Calluna-dominated ecosystems in the UK*. **Terry, A.C., et al., et al.** 2004, *Journal of Applied Ecology*, Vol. 41, pp. 897-909.
106. **Environment Agency**. *Cam and Ely Ouse Abstraction Licensing Strategy*. Bristol : Environment Agency, 2013.
107. **AECOM Infrastructure & Environment UK Ltd**. *Forest Heath District Council, Single Issue Review of CS7 and Site Allocations Local Plan - Air Quality Assessment Regarding Breckland SAC and Breckland SPA*. 2018.
108. **Arcadis**. *Forest Heath Water Cycle Strategy April 2018 Addendum*. 2018.
109. —. *Forest Heath WCS Update - Addendum March 2018*. 2018.
110. **Aspect Ecology**. *HRA Framework Report: Land East of Red Lodge, Suffolk*. 2013.
111. **AECOM Infrastructure & Environment UK Ltd**. *Forest Heath District Council, Single Issue Review of CS7 and Site Allocations Local Plan - Updated Air Quality Assessment Regarding Breckland SAC, Breckland SPA and Rex Graham Reserve SAC*. s.l. : Unpublished report for FHDC, 2019.
112. **Applied Ecology Ltd**. *Leakenheath North HRA Redacted Version*. s.l. : Unpublished, 2015.

Appendix 1

Review of other relevant plans and projects

County or district level plans providing for development

Breckland Core Strategy and Development Control Policies Document

Status

Adopted 2009. Forms part of the Breckland Council Local Plan; outlines the vision and overall objectives for development in Breckland up to 2026 and sets out where new housing and other development should be focused. Also contains the Development Control policies for Breckland that will inform future planning decisions.

Types of development with potential for in combination effects

Housing provision: The Core Strategy makes provision for at least 19,100 new dwellings within the period 2001-2026 (Policy CP 1).

Employment land provision: The Core Strategy (Policy CP 3) supports the delivery of at least 6,000 jobs in the area to 2021 as identified for Breckland in the Regional Spatial Strategy.

Reference to European sites

Spatial Vision states that all development will be within the environmental limits placed on Breckland, including in relation to the extensive areas that are designated as European Habitats.

Policies SS1 Spatial Strategy and CP1 Housing state that in developing housing delivery trajectories, full regard has been given to the strategic infrastructure requirements necessary to support housing delivery, including that necessary to mitigate effects on European Habitats.

Policy CP 4 Infrastructure states that any new road infrastructure required to serve strategic growth will not take place within 200m of SACs.

Policy CP 8 Natural Resources requires that new development should not materially increase the risk of flooding to European habitats which are water sensitive.

Policy CP10 Natural Environment require that an appropriate assessment is undertaken of all proposals for development that are likely to have a significant effect on the Breckland Special Protection Area (SPA) and will only permit development that will not adversely affect the integrity of the SPA. In applying this policy the Council has defined a buffer zone indicated on the Proposals Map that extends 1,500m from the edge of those parts of the SPA that support or are capable of supporting stone curlews, within which:-

- a. Permission may be granted for the re-use of existing buildings and for development which will be completely masked from the SPA by existing development; alternatively
- b. Permission may be granted for development provided it is demonstrated by an appropriate assessment the development will not adversely affect the integrity of the SPA.

In other locations, indicated in blue on the Proposals Map, the Council will apply the policy set out above to afford protection to other land supporting the qualifying features of the SPA.

Where it can be shown that proposals to mitigate the effects of development would avoid or overcome an adverse impact on the integrity of the SPA or qualifying features, planning permission may be granted provided the Local Planning Authority is satisfied those proposals will be implemented. The Council will consider the need for an appropriate assessment to determine the implications of development on other interest features of the SPA (i.e. Nightjar and Woodlark) on a case by case basis.

Policy DC 8 Tourism Related Development requires proposals for tourist facilities to avoid significant effects on European habitats or species.

Breckland Site Specific Policies and Proposals

Status

Adopted 2012 and forms part of the Breckland Council Local Plan.

Types of development with potential for in combination effects

Allocates areas of land for different uses to deliver the requirements of the Breckland Core Strategy up to 2026. Includes allocations for new housing, employment, and retail.

Reference to European sites

The summary text for Watton states that the Core Strategy requires that sites are well integrated with the established built up area of the town in order to minimise the impact on the countryside and local wildlife, particularly Wayland Wood and the Breckland SPA.

Breckland Site Specific Policies and Proposals

However, there are no policy references to European Sites.

Breckland emerging new Local Plan

Status

The Breckland Proposed Submission Local Plan was submitted for Examination on 30 November 2017¹⁹ and hearing sessions closed in September 2018.

Types of development with potential for in combination effects

Housing provision: Breckland Council's Proposed Submission Local Plan provides for 15,950 houses over the plan period 2011 to 2036.

Employment land provision: The Proposed Submission document provides for 67 ha of land for employment growth between 2011 and 2036.

Reference to European sites

Policy GEN 4 Development Requirements of Attleborough Strategic Urban Extension (SUE) requires consideration of measures to mitigate potential adverse recreational impacts on designated nature conservation sites (SPAs, SACs, Ramsar) outside the growth area.

Swaffham Allocation 1 Land off New Sporle Road (South) (LP[097]006) states that residential development will be permitted subject to the following criteria: Submission of a project level HRA to determine the impact of proposed development on Breckland SPA/SAC and to assess habitat suitability, the need for additional survey work and mitigation strategies where required.

Same as above for Swaffham Allocation 2 Land off New Sporle Road (North) (LP[097]008), Swaffham Allocation 3 Land to the east of Brandon Road (LP[097]009), Swaffham Allocation 4 Land to the south of Norwich Road (LP[097]010), Swaffham Allocation 5 Land off Sporle Road (LP[097]013), Swaffham Allocation 6 Land to the north of Norwich Road (LP[097]018), Watton Housing Allocation 1 Land off Saham Road (LP[104]008 & LP[104]019), Watton Housing Allocation 2 Land north of Norwich Road, Watton (LP[104]015) and Narborough Housing Allocation 1 Land to the south of Chalk Lane (LP[065]008).

Policy ENV02 Sites of International, European, National & Local Nature Conservation Importance states that the highest level of protection will be given to European Sites, with development only permitted where it can be demonstrated that there will be no adverse effect (either directly or indirectly) on the integrity of any European site (either alone or in combination with other plans or projects).

Policy ENV 03 The Brecks Protected Habitats & Species requires that a HRA is undertaken on all proposals for development that are likely to have a significant effect on the Breckland SPA which is classified for its populations of Stone Curlew, Woodlark and Nightjar, and/or Breckland SAC, which is designated for its heathland habitats. Development will only be permitted where it can be demonstrated that the proposal will not adversely affect the integrity of the SPA or the SAC.

Cambridgeshire and Peterborough Minerals and Waste Core Strategy

Status

Adopted by Cambridgeshire County Council and Peterborough City Council in 2011.

Types of development with potential for in combination effects

The following strategic Objectives were identified for sustainable minerals development;

- to contribute to the national, regional and local mineral supply by maintaining an adequate and steady supply of minerals and to meet local requirements at a rate sufficient to enable the delivery of the planned growth in Cambridgeshire and Peterborough
- to provide for the creation and servicing of new sustainable communities and infrastructure in the plan area
- to make allocations for new sand and gravel extraction in areas outside of the Ouse and Nene river valleys to safeguard the economic mineral resource of Cambridgeshire and Peterborough through the designation of Mineral Safeguarding Areas and Mineral Consultation Areas Vision

¹⁹ Breckland Council (August 2017) <https://www.breckland.gov.uk/article/7343/Evidence-Base-Submission-Documents->

Cambridgeshire and Peterborough Minerals and Waste Core Strategy

- to minimise the use of virgin mineral by encouraging the efficient use of materials
- to contribute to meeting strategic objectives relating to sustainable flood risk management for the Cranbrook and Counter Drain catchment, and enhancement habitat creation adjacent to the Ouse Washes
- to maximise biodiversity and community benefits including additional green infrastructure
- to encourage operational practices and restoration proposals which minimise or help to address climate change
- to identify planning policy criteria by which to assess mineral proposals, ensure effective planning control and the appropriate location of mineral extraction
- to safeguard and enhance the distinct landscapes of Cambridgeshire and Peterborough including the wet fens, river valleys, chalk and limestone uplands
- to protect and enhance the biodiversity and historic environment, including designated sites, of Cambridgeshire and Peterborough
- to protect the ground and surface water resources of Cambridgeshire and Peterborough
- to safeguard the residential amenity of new and existing communities in Cambridgeshire and Peterborough
- to ensure that potential emissions are minimised as part of minerals development
- to ensure high quality in terms of design and operation of mineral operations in Cambridgeshire and Peterborough
- to encourage and safeguard sustainable transport of minerals e.g. by rail and water
- to ensure the sustainable use of soils in Cambridgeshire and Peterborough

The following strategic Objectives were identified for sustainable waste development;

- to ensure suitable provision is made through site specific allocations for sustainable waste facilities to manage the waste of Cambridgeshire and Peterborough, London or adjoining authorities
- to develop a network of waste management facilities which will be located having regard to climate change, and key factors including the location and amount of waste arising, and minimising the of movement of waste
- to contribute to ensuring self-sufficiency of the wider area in the management of waste, and to seek self-sufficiency within the Plan area where practical and in accordance with the proximate management of waste
- to ensure that all major new developments undertake sustainable waste management practices
- to use construction and demolition waste in the creation of strategic new enhancement habitat for the internationally important Ouse Washes
- to identify planning policy criteria by which to assess waste development proposals
- to encourage waste management practices which do not incur unacceptable adverse impact on the local and global environment or endanger human health in Cambridgeshire and Peterborough
- to encourage waste management practices which minimise, counter (through off-set arrangements), or eliminate contributions to climate change, including the minimisation of greenhouse gases
- to ensure that waste management sites are resilient to the impacts of climate change at the local level
- to ensure high quality of design and operation of waste management facilities in Cambridgeshire and Peterborough
- to encourage sustainable transport of waste by alternative means e.g. rail and water
- to protect the ground and surface water resources of Cambridgeshire and Peterborough
- to safeguard and enhance the distinct landscapes of Cambridgeshire and Peterborough including the wet fens, river valleys, chalk and limestone uplands
- to protect and enhance the biodiversity and historic environment, including designated sites, of Cambridgeshire and Peterborough
- to safeguard the residential amenity of new and existing communities in Cambridgeshire and Peterborough
- to allow scope for new technology and innovation in waste management in the Plan area e.g. exemplar projects in handling and processing of waste
- to determine waste planning applications in the light of the principles for sustainable waste management and the waste hierarchy to ensure the sustainable use of soils
- to safeguard waste management sites from incompatible development that may prejudice the waste use, through the designation of Waste Consultation Areas

Cambridgeshire and Peterborough Minerals and Waste Core Strategy

Reference to European sites

There are no policy references to European Sites.

Cambridgeshire Local Transport Plan 2011-2031

Status

Adopted by Cambridgeshire County Council in 2015.

Types of development with potential for in combination effects

The key objectives identified within the Local transport Plan were

- Enabling people to thrive, achieve their potential and improve their quality of life.
- Supporting and protecting vulnerable people.
- Managing and delivering the growth and development of sustainable communities.
- Promoting improved skill levels and economic prosperity across the county, helping people into jobs and encouraging enterprise.
- Meeting the challenges of climate change and enhancing the natural environment.

Reference to European sites

There is reference to European Sites within the descriptive sections of Challenge 7: Protecting and enhancing the natural environment by minimising the environmental impact of transport, however there are no policy references to European Sites.

East Cambridgeshire Local Plan

Status

Adopted by East Cambridgeshire District Council in 2015.

Types of development with potential for in combination effects

Housing provision: The Local Plan makes provision for an agreed target of 11,500 dwellings for East Cambridgeshire which represents an annual rate of 575 dwellings per year during the period 2011-2031.

Employment land provision: The Local Plan aims to maximise opportunities for jobs growth in the district, with the aim of achieving a minimum of 9,200 additional jobs in East Cambridgeshire. Part of this strategy will involve making provision for a deliverable supply of at least 179 ha of employment land for B1/B2/B8 uses, and providing for home working.

Reference to European sites

Policy ELY 1 Housing-led sustainable urban extension, North Ely expects development to undertake a project level HRA process, to ensure there will be no adverse effect on European Sites.

Policy FRD 5 Employment allocation, land north of Snailwell Road expects development to undertake a project level HRA process, to ensure there will be no adverse effect on European Sites.

Policy FRD 6 Employment allocation, land at Horse Racing Forensic Laboratories expects development to undertake a project level HRA process, to ensure there will be no adverse effect on European Sites.

Policy LIT 1 Housing/employment allocation, west of Woodfen Road expects development to undertake a project level HRA process, to ensure there will be no adverse effect on European Sites.

Policy LIT 2 Housing allocation, land west of Highfields expects development to undertake a project level HRA process, to ensure there will be no adverse effect on European Sites.

Forest Heath Core Strategy

Status

Adopted by FHDC in 2010.

Forest Heath Core Strategy

Policy CS 7 of the adopted Forest Heath Core Strategy, which is the subject of the Single Issue Review, defines the total amount of housing to be provided, its broad distribution between the larger settlements, the broad locations for large urban extensions, the minimum average housing density to be achieved, and the proportion of housing to be developed on brownfield land. The other policies of the Core Strategy remain in force and are therefore considered in the in combination assessment.

Types of development with potential for in combination effects

Policy CS 6 Sustainable Economic and Tourism Development: Provides for development of 16 ha of employment land, with Newmarket (approximately 5 ha) identified as the primary location for strategic employment growth, and development at other settlements in broad alignment with the scale of housing development - Mildenhall (approximately 4.5 ha), Brandon (approximately 2 ha), Lakenheath and Red Lodge growth. Spatially non-specific support for tourism development that will not have a significant adverse effect on the environment.

Policy CS 8 Provision for Gypsy and Travellers: Allocation of six additional pitches between 2006-2011 and spatially non-specific commitment to provide for a 3% annual increase in pitches across the area thereafter.

Policy CS 10 Sustainable Rural Communities: Spatially non-specific support for limited provision of housing and local facilities within villages and small settlements subject to various criteria. Also support for enterprises requiring a rural location, subject to no significant environmental effects.

Policy CS 12 Strategic Transport Improvement and Sustainable Transport: Supporting partner organisations to deliver strategic transport road, rail and cycle network improvements, including dualling of the A11 between Thetford and Barton Mills and improvements to Fiveways roundabout and improvements to the A14/A142 junction at Newmarket.

Reference to European sites

Policy CS 2 Natural Environment states that areas of landscape, biodiversity and geodiversity interest and local distinctiveness within the area will be protected from harm and their restoration, enhancement and expansion will be encouraged and sought through a variety of measures. In addition, new built development will be restricted within 1,500m of components of the Breckland SPA designated for Stone Curlew. Proposals for development within these areas will require a project level HRA. Also, where new development is proposed within 400m of components of the Breckland SPA designated for Woodlark or Nightjar a project level HRA will be required. Finally, new road infrastructure or road improvements will not be allowed within 200m of sites designated as SACs in order to protect the qualifying features of these sites.

King's Lynn and West Norfolk Core Strategy

Status

Adopted by Borough Council of King's Lynn and West Norfolk in 2011

Types of development with potential for in combination effects

Housing provision: Policy CS01 of the Core Strategy states the plan will identify sufficient land for a minimum of 16,500 new dwellings across the Borough over the period 2001 to 2026: a minimum of 7,510 new dwellings through the regeneration of brownfield land and urban expansion in King's Lynn, at least 2,710 new homes with new allocations of at least 390 house in Downham Market, at least 580 new homes with new allocations of at least 220 dwellings in Hunstanton, considers the provision of at least 550 new dwellings to the east of the town in the area adjacent to Wisbech and makes provision for at least 2,880 new homes within or adjacent to selected Key Rural Service Centres (to be defined in the Site Specific Allocations DPD) in rural and coastal areas.

Employment land provision: Policy CS10 of the Core Strategy aims to facilitate job growth in the local economy, delivering the RSS target of 5,000 additional jobs by 2021 through the provision of employment land as well as policies for tourism, leisure, retail and the rural economy.

Reference to European sites

Policy CS07 Development in Coastal Areas promotes visitor access in coastal areas of the borough, whilst considering any necessary measures to meet the requirements of the HRA and protect the integrity of the coastal European sites.

Policy CS12 Environmental Assets states that new built development will be restricted within 1,500m of the Breckland SPA. Development will be restricted to the re-use of existing buildings or where existing development completely masks the new proposal from the Breckland SPA. Beyond the SPA, a 1,500m buffer will also be applied to areas where the qualifying features are known to exist, or where nesting attempts have been made. In this area, development may be acceptable where suitable alternative habitat (outside the SPA) can be secured.

King's Lynn and West Norfolk Site Allocations and Development Management Policies Plan

Status

Adopted by Borough Council of King's Lynn and West Norfolk in 2016

Types of development with potential for in combination effects

The role of the Site Allocations and Development Management Policies Plan is to implement the broad policies in the Core Strategy (above) and not to rewrite or review it. Therefore, the housing and employment land provision stated below is taken from the Core Strategy.

Housing provision: Policy CS01 of the Core Strategy states the plan will identify sufficient land for a minimum of 16,500 new dwellings across the Borough over the period 2001 to 2026: a minimum of 7,510 new dwellings through the regeneration of brownfield land and urban expansion in King's Lynn, at least 2,710 new homes with new allocations of at least 390 house in Downham Market, at least 580 new homes with new allocations of at least 220 dwellings in Hunstanton, considers the provision of at least 550 new dwellings to the east of the town in the area adjacent to Wisbech and makes provision for at least 2,880 new homes within or adjacent to selected Key Rural Service Centres (to be defined in the Site Specific Allocations DPD) in rural and coastal areas.

Employment land provision: Policy CS10 of the Core Strategy aims to facilitate job growth in the local economy, delivering the RSS target of 5,000 additional jobs by 2021 through the provision of employment land as well as policies for tourism, leisure, retail and the rural economy. In addition, approximately 50 hectares of new employment land is to be provided within the town.

Reference to European sites

Policy DM 11 Touring and Permanent Holiday Sites states that proposals for uses adversely affecting SSSIs or European Sites will be refused permission.

Policy DM 19 Green Infrastructure/Habitats Monitoring and Mitigation endorses a Monitoring and Mitigation Strategy including: project level HRA to establish affected areas (SPA, SAC, Ramsar) and a suite of measures including all/some of: provision of an agreed package of habitat protection measures, to monitor recreational pressure resulting from the new allocations and, if necessary, mitigate adverse impacts before they reach a significant threshold, in order to avoid an adverse effect on the European sites identified in the HRA.

Policy E2.1 West Winch Growth Area Strategic Policy requires the provision of significant green infrastructure including measures to mitigate potential adverse recreational impacts on designated nature conservation sites (SPAs, SACs, Ramsar) outside the growth area.

St Edmundsbury Core Strategy

Status

Adopted by the former St Edmundsbury Borough Council in 2010

Types of development with potential for in combination effects

Housing provision: The Core Strategy makes provision for at least 15,631 new homes within the plan period between 2008 and 2031 (Policy CS1).

Employment land provision: Policy CS9 of the Core Strategy provides for development to support at least 13,000 additional jobs in the borough by 2026.

Reference to European sites

Policy CS2 Sustainable Development requires the protection and enhancement of natural resources; including identifying, protecting and conserving: a network of designated sites including the Breckland SPA and other sites of national and local importance. It is also noted that only development that will not adversely affect the integrity of the SPA will be permitted. In applying this policy a buffer zone has been defined that extends 1,500m from the edge of those parts of the SPA that support or are capable of supporting stone curlews within which:

- Permission may be granted for the re-use of existing buildings and for development which will be completely masked from the SPA by existing development; alternatively
- Permission may be granted for other development not mentioned above provided it is demonstrated by an appropriate assessment that the development will not adversely affect the integrity of the SPA.

A further 1,500m buffer zone has been defined which extends around those areas (shown on the Proposals Map) outside of the SPA which have supported 5 or more nesting attempts by stone curlew since 1995 and as such act as supporting stone curlew habitat, within which permission may be granted in accordance with a) and b) above. Additionally within this zone, where it can be shown that proposals to mitigate the effects of development would avoid or overcome an adverse impact on the integrity of the SPA or qualifying features, planning permission may be granted provided the Local Planning Authority is satisfied that those proposals will be implemented. In these areas development

St Edmundsbury Core Strategy

may also be acceptable providing alternative land outside the SPA can be secured to mitigate any potential effects. Development at Risby (which lies partly within the 1,500m stone-curlew buffer) will be possible if it is fully screened from the Breckland SPA by existing development. A project level appropriate assessment should be undertaken to ensure no adverse effect upon the integrity of the SPA. A 400m buffer zone has been defined around those parts of the SPA that support or are capable of supporting nightjar and woodlark. Any development proposal within this zone will need to clearly demonstrate that it will not adversely affect the integrity of the SPA.

St Edmundsbury Vision 2031 Local Plan Documents

Status

Adopted by the former St Edmundsbury Borough Council in 2014.

Types of development with potential for in combination effects

Site allocations for Bury St Edmunds, Haverhill, and the Rural Area.

Reference to European sites

The Vision states that while the Breckland SPA does not fall within the area covered by the Vision 2031 document, impact on the SPA, in terms of increased recreational pressure resulting from the strategic growth, will need to be carefully considered in appraising the proposals for development on the sites.

South Cambridgeshire Local Plan 2011-2031

Status

Adopted by South Cambridgeshire District Council in 2018

Types of development with potential for in combination effects

Housing provision: Policy S/5 of the states that the plan will meet the objectively assessed needs in the area for 19,500 new homes, including affordable housing.

Employment land provision: The Local Plan makes provision for 22,000 additional jobs to support the Cambridge Cluster and provide a diverse range of local jobs.

Reference to European sites

Policy NH/5: Sites of Biodiversity or Geological Importance states that proposed development likely to have an adverse effect on land within or adjoining a Site of Biodiversity or Geological Importance, as shown on the Policies Map will not normally be permitted. Sites of Biodiversity or Geological Importance are identified on the Policies Map which include SACs and SPAs, but are not limited to these sites.

Suffolk Minerals Core Strategy DPD

Status

Adopted by Suffolk County Council in 2008

Types of development with potential for in combination effects

The key objectives identified within the minerals Core Strategy were:

- to ensure, so far as practicable, the prudent, efficient and sustainable use of minerals and recycling of suitable materials, thereby minimising the requirement for new primary extraction;
- to conserve mineral resources through appropriate domestic provision and timing of supply;
- to safeguard mineral resources as far as possible;
- to prevent or minimise production of mineral waste;
- to secure working practices which prevent or reduce as far as possible, impacts on the environment and human health arising from the extraction, processing, management or transportation of minerals;
- to protect internationally and nationally designated areas of landscape value and nature conservation importance from minerals development, other than in the exceptional circumstances detailed in paragraph 14

Suffolk Minerals Core Strategy DPD

of this statement;

- to secure adequate and steady supplies of minerals needed by society and the economy within the limits set by the environment, assessed through sustainability appraisal, without irreversible damage;
- to maximise the benefits and minimise the impacts of minerals operations over their full life cycle;
- to promote the sustainable transport of minerals by rail, sea or inland waterways;
- to protect and seek to enhance the overall quality of the environment once extraction has ceased, through high standards of restoration, and to safeguard the long-term potential of land for a wide range of after-uses;
- to secure closer integration of minerals planning policy with national policy on sustainable construction and waste management and other applicable environmental protection legislation; and
- to encourage the use of high quality materials for the purposes for which they are most suitable.

Reference to European sites

Paragraph 6 of PPS9 states that sites identified through European directives and/or international conventions enjoy statutory protection, and thus no specific policies should be included in DPDs.

Suffolk Waste Core Strategy DPD

Status

Adopted by Suffolk County Council in 2011.

Types of development with potential for in combination effects

The key objectives identified within the waste Core Strategy were:

- To provide policies and identify locations for the management of the quantities of waste apportioned to Suffolk through the East of England Plan.
- To facilitate sustainable waste management by minimising waste as a priority and encouraging communities to take responsibility for the waste they produce through better education via public consultation.
- To facilitate the efficient transportation of waste throughout Suffolk.
- To facilitate the driving of waste up the hierarchy through the provision of sufficient suitable waste management facilities for waste recycling, composting and transfer.
- To facilitate equality of public access to Household Waste Recycling Centres.
- To encourage waste management facilities and practices that do not endanger human health and to ensure that adverse impacts on residential amenity and the quality of life can be prevented or suitably mitigated.
- To minimise adverse impacts on air quality.
- To minimise adverse impacts on landscape quality and the built and historic environment.
- To minimise adverse ecological and geological/geomorphological impacts, and to encourage opportunities for restoration, creation and enhancement of wildlife habitats.
- To minimise adverse impacts on water quality.

To facilitate proposals and encourage waste management practices that reduce the effects of the emissions of greenhouse gases and deliver renewable energy production where feasible and appropriate and mitigate against the impacts of climate change.

Reference to European sites

There are no policy references to European Sites.

Suffolk Minerals and Waste Local Plan

Status

Submitted to the Secretary of State by Suffolk County Council in December 2018.

Types of development with potential for in combination effects

The Suffolk Minerals & Waste Local Plan (SMWLP) contains planning policies for determining planning applications for minerals and waste development, as well as safeguarding the same from other forms of competing development.

Suffolk Minerals and Waste Local Plan

Policies include those that specify sites for future minerals and waste development.

The SMWLP has allocated 10 sites for the extraction of sand and gravel, which are collectively expected to provide 12.180 Mt over the Plan period to the end of 2036. Policy MP1 also states that the County Council will seek to maintain a land bank of permitted reserves of at least 7 years based upon the average of the last ten years' sales.

There is no immediate shortfall in waste management capacity and only one site for waste development has been allocated at Sizewell "A" Nuclear Power Station for the treatment and temporary storage of radioactive material removed as part of decommissioning.

Reference to European sites

Policy MS2 Barnham states that development will be accepted if they adequately address potential impacts upon nature conservation interest including Breckland SPA and Breckland SAC.

Policy MS4 Cavenham states that development will be accepted if they adequately address potential impacts upon nature conservation interest including Breckland SPA and Breckland SAC.

Policy MS10 Worlington states that development will be accepted if they adequately address potential impacts upon nature conservation interest including Breckland SPA and Breckland SAC.

Suffolk Local Transport Plan 2011-2031

Status

Adopted by Suffolk County Council.

Types of development with potential for in combination effects

The plan includes a the delivery of a number of strategic transport improvements including:

- dualling of the A11 between Barton Mills and Thetford
- the Ipswich major scheme, 'Ipswich- Transport fit for the 21st Century'
- the Beccles rail loop allowing increased frequency of trains between Ipswich and Lowestoft
- the Beccles southern relief road
- the Lowestoft northern spine road to help remove through traffic from the town
- Ipswich rail chord to improve freight connections from Felixstowe
- Copdock A14/A12 junction improvements.

Reference to European sites

The plan devised for Brandon states that a project level HRA will need to screen for any likely significant effects on European sites and measures will need to be implemented to avoid, reduce and compensate for any impacts and enhance biodiversity habitats and species.

However, there are no policy references to European Sites.

Major infrastructure projects²⁰

A14 Cambridge to Huntingdon Improvement Scheme

Status

A development consent order was granted to Highways England for the A14 Cambridge to Huntingdon Improvement Scheme was taken in May 2016. An application for a non-material change was made in January 2019.

Outline of proposal

The scheme comprises:

- widening of the A1 between Brampton and Alconbury over a length of approximately 5.6 km (3½ miles) from the existing two lane dual carriageway to a three lane dual carriageway. Between Alconbury and Brampton

²⁰ National Infrastructure Planning website <https://infrastructure.planninginspectorate.gov.uk/>

A14 Cambridge to Huntingdon Improvement Scheme

Hut, this would generally be achieved by widening on the east side of the existing road;

- between Brampton and Brampton Hut a new road would be constructed to the west of the existing A1 which would become the new A1. This would enable the existing carriageway over this length to form part of the new A14 Huntingdon Southern Bypass. A local access road approximately 2.5 km (1.6 miles) would link the Ellington Junction with Woolley Road;
- a new Huntingdon Southern Bypass of approximately 20 km (12½ miles) in length, which would provide a two lane dual carriageway between Ellington and the A1 at Brampton and a three lane dual carriageway between Brampton and Swavesey. The new bypass would cross over the River Great Ouse and the East Coast Mainline railway. It would include junctions with the A1 at Brampton and with the A1198 at Godmanchester;
- downgrading the existing A14 trunk road (de-trunking to county road status) over approximately 21 km (13 miles) between Brampton Hut and Swavesey, as well as between Alconbury and Spittals interchange;
- Huntingdon Town Centre improvements, to include the closure and demolition of the A14 viaduct over the East Coast Mainline railway and Brampton Road in Huntingdon. A new link road would be constructed to improve accessibility into Huntingdon from the south and east by connecting the old A14 directly with Huntingdon Ring Road near the bus station and by constructing a new link road from Brampton Road to connect with the A14 to the west. As such, a through route for light vehicles would be maintained;
- widening of the existing A14 over approximately 7.9 km (5 miles) to provide three lanes in each direction between Swavesey and Report to the Secretary of State 6 A14 Cambridge to Huntingdon Bar Hill and four lanes in each direction between Bar Hill and Girton;
- widening of a 2.5 km (1½ mile) section of the Cambridge Northern Bypass between Histon and Milton;
- improvement of existing A14 junctions at Swavesey, Bar Hill and Girton; to improve the capacity of the road, ensure compatibility with adjacent proposed developments such as Northstowe and provide improved connections for non-motorised users;
- a new local access road following the route of the A14 over a distance of approximately 8 km (5 miles), including construction of a dual carriageway link between the existing A14 near Fen Drayton and Swavesey junction and a single carriageway between Swavesey and Girton. The road would provide a route for local traffic between Cambridge and Huntingdon as well as providing access to properties and businesses along the corridor.

Potential to contribute to in combination effects

Improved section of road is beyond Forest Heath area boundary. Potential to contribute to in combination air quality effects but the road traffic and air quality assessment carried out for the HRA of the SIR and SALP considers all relevant traffic growth.

Kings Lynn B Connection Project

Status

A development consent order for Kings Lynn B Connection Project was granted to National Grid in December 2013.

Outline of proposal

A 2.8km 400 kilovolts overhead electric line. The Project is required to make a connection from Centrica's approved King's Lynn B 981 MV combined cycle gas turbine power station and substation to the national grid high-voltage electricity transmission network.

Potential to contribute to in combination effects

None identified.

Palm Paper 3 CCGT Power station Kings Lynn

Status

Development consent for Palm Paper 3 CCGT Power station Kings Lynn, a 162 megawatt Combined Cycle Gas Turbine, was granted in February 2016.

Outline of proposal

The Site comprises two separate areas. When built, the CCGT plant will occupy an area of 3,500m². Some areas will also be required during the construction phase for contractors' working areas and storage, and this will be contained

Palm Paper 3 CCGT Power station Kings Lynn

within the present Palm Paper premises. This area is approximately 7,000m² in size.

In summary, the Proposed Development will comprise:

- Fuel supply
- Gas turbine-generator set
- Heat Recovery Steam Generator (HRSG)
- Steam turbine and steam turbine generator
- Condensers
- Water treatment plant including associated ancillary systems
- Transformers
- Switchyard
- Fire protection system

Potential to contribute to in combination effects

None identified.

Progress Power Station

Status

Development consent for Progress Power Station, a Gas Fired Power Station at Eye Airfield Industrial Estate in Mid Suffolk, was granted in July 2015. A non-material change order was granted in November 2016.

Outline of proposal

The Project consists of three main elements: The Power Generation Plant, the Gas Connection, and the Electrical Connection.

- A new Power Generation Plant, a Single Cycle Gas Turbine gas fired power generating station capable of providing up to 299 MW, incorporating up to five gas turbine generators (GTG) with up to five exhaust gas flue stacks.
- A new electrical connection, (referred to as the Electrical Connection) to export electricity from the Power Generation Plant to the National Grid Transmission System. This element incorporates a new underground cable circuit connection, and a new access road, with a new road junction off the A140 (the A140 Junction), and a new Electrical Connection Compound comprising a new substation and sealing end compound; and
- A new gas pipeline connection to bring natural gas to the Power Generation Plant from the National Grid Transmission System in the vicinity of the Project Site. This element incorporates an Above Ground Installation at its southern end and a new access road off Potash Lane.

Potential to contribute to in combination effects

None identified.

Other relevant projects

Planning consent has been sought from FHDC or a pre-application EIA Scoping request consulted on for a number of developments within the area which have not yet been developed and which are not included as allocations in the SALP but which are large enough to present a credible risk that they might have significant effects in combination with the SALP.

Each of the projects has been reviewed for its potential to have significant effects on European sites in combination with the SALP, following the methodology described in Chapter 3.

FHDC Local Plan ref. at Options stage	Planning application/ EIA Scoping Request ref.	Site address	Outline of current proposal	Is site in a location requiring project level HRA under Core Strategy Policy CS2?	Potential to contribute to in combination effects
Newmarket					
N/A	DC/16/2063/FUL	New Gallops, Hamilton Road' Newmarket	Artificial 'uphill training' gallop with lagoon, car park, access and all associated works	No	<p>Application is supported by an ES. Natural England confirmed that potential effects on surface water quality are adequately addressed by the proposed lagoon. Natural England identified potential effects on Devil's Dyke SAC and Chippenham Fen SAC due to emissions from horse waste on site (consultation responses dated 16/1/2016 and 26/10/2016). The Council has confirmed that conditions will be sought that secure the necessary mitigation, namely that horse waste must be stored on-site in a secure container and removed regularly.</p> <p>Conclusion: There is no potential for minor effects that could act in combination with the SIR and SALP.</p>
Lakenheath					
N/A	DC/18/0456/EIASCR	RAF Lakenheath, Brandon Road, Lakenheath Suffolk IP27 9PR	Screening opinion for New campus to facilitate the new F-35A Lightning II aircraft; re-development of hospital to provide new and refurbished facilities; new high school to replace existing school within RAF Lakenheath; extension to existing on-base shopping mall and food court; and replacement of existing oil and	Yes - site is adjacent to Breckland SPA and includes a component of SAC	Information was submitted to inform an EIA screening request. Natural England has confirmed to the Council (email dated 21/3/18) that all issues raised by it have been resolved, i.e. that it is happy with the information provided and proposed mitigation. An EIA Screening carried out by the Council (dated 22/3/2018) identifies that

FHDC Local Plan ref. at Options stage	Planning application/ EIA Scoping Request ref.	Site address	Outline of current proposal	Is site in a location requiring project level HRA under Core Strategy Policy CS2?	Potential to contribute to in combination effects
			water separator		<p>elements of the project site form part of Breckland SAC and that Breckland SPA and other areas of the SAC are immediately to the east of it. Despite this, the Council has concluded that there would be no significant effects to these designations. The factors affecting the SAC are likely to be enhanced by the project because of enhanced air quality conditions (compared to existing base line conditions) resulting from a reduced emissions from decreased aircraft activity (jet take-offs in particular). No impacts to the adjacent SPA and SAC designations to the east of the site are anticipated, subject to careful construction management during the sensitive bird nesting seasons (as part of a Construction and Environmental Management Plan).</p> <p>Conclusion: EIA Screening indicates that significant effects are not likely. However, the competent authority for this would be required to complete a project level HRA that would inform the decision making process.</p>
Other settlements					
N/A	DC/16/1360/OUT	Land at Little Eriswell	Outline Planning Application (Means of Access to be considered) - (i) Up to 550 dwellings (ii) Primary School (iii) Retail unit (iv) Associated	Yes – site is within the 1,500 m stone curlew constraint zone	Current planning application is supported by an ES and additional supporting HRA information but the HRA has not yet been completed. Mitigation is

FHDC Local Plan ref. at Options stage	Planning application/ EIA Scoping Request ref.	Site address	Outline of current proposal	Is site in a location requiring project level HRA under Core Strategy Policy CS2?	Potential to contribute to in combination effects
			open and play space, allotments, landscaping and infrastructure works		<p>proposed as part of the application in relation to disturbance and recreational effects including in combination recreational effects on Breckland SAC and SPA. The local planning authority is not supporting this application - it is not included in the local plan. Natural England has confirmed (consultation response dated 6/6/2017) that they have no objection subject to securing mitigation in the form of provision of habitat for stone curlew and provision of green infrastructure on-site.</p> <p>Conclusion: Prior to determining this planning application, FHDC should carry out a project level HRA informed by the information available and refuse permission if adverse effects on the integrity of a European site cannot be ruled out in combination with other plans and projects, including with the SIR and SALP.</p>
N/A	East Cambridgeshire District 18/00752/ESO	Land Southwest Of 98 To 138 Station Road Kennett Suffolk	500 dwellings , new primary school, other community facilities, strategic green infrastructure and commercial development opportunities	Yes – site is within 1,500 m of 2011-2015 stone curlew nesting attempts grid squares associated with Breckland SPA (although it would not be subject to CS2 as it is in the neighbouring authority of East Cambridgeshire)	<p>MLM Group provided information (dated 1/6/2018) to inform an HRA to accompany this application. This indicates that the scheme is 1,800m from the closest European site (Breckland SPA) but within 1,500 m of a stone curlew nesting attempts grid square functionally linked to the SPA.</p> <p>The proposed scheme provides extensive green infrastructure (11 ha equal to 25% of site area) linked into the local footpath</p>

FHDC Local Plan ref. at Options stage	Planning application/ EIA Scoping Request ref.	Site address	Outline of current proposal	Is site in a location requiring project level HRA under Core Strategy Policy CS2?	Potential to contribute to in combination effects
					<p>network. The MLM report concludes that this should avoid any residual recreation pressure effects on either Breckland SPA or functionally linked stone curlew habitat. Other types of effect such as noise, light pollution, and visual disturbance are also ruled out.</p> <p>Natural England's consultation response of 4/4/2018 agrees that the proposed development is unlikely to have any direct or indirect impact on designated sites, including Breckland SPA and supporting habitat for stone curlew.</p> <p>Conclusion: Based on the information provided by the site promoter to support an HRA and Natural England being satisfied that the proposal will not have adverse impact on any designated site, LUC concludes that there is not potential for adverse effects on the integrity of any European site from this proposal in combination with the development proposed by the SIR and SALP.</p>
N/A	DC/19/0472/EIASCO	Sunnica East Solar Farm, Green Lane, between Freckenham and Worlington, Suffolk; Sunnica West Solar Farm in East Cambridgeshire District and associated cable connections	Construction of a solar farm at the Sunnica East Site which comprises five contiguous parcels of land (separated by minor roads) located 2.5km to the south-west of Mildenhall. A cable connection to the Sunnica West site which lies to the south west in East Cambridgeshire District (and forms part of the	No	<p>Application is at an early stage and information in relation to potential ecological impact is only available from an EIA Scoping Report. This confirms that the proposed scheme will be subject to both EIA and project level HRA.</p> <p>Conclusion: Once prepared, the</p>

FHDC Local Plan ref. at Options stage	Planning application/ EIA Scoping Request ref.	Site address	Outline of current proposal	Is site in a location requiring project level HRA under Core Strategy Policy CS2?	Potential to contribute to in combination effects
			same application) will also be provided.		project level HRA for this scheme will need to take into account the potential for effects in combination with the development proposed by the SIR and SALP, which are at a more advanced stage in the planning process. Should this reveal the potential for adverse in-combination effects on the integrity of on any European site, mitigation will be required to avoid such effects.

Appendix 2

European sites information

Site	Summary of reasons for designation	European site pressures and threats	Conservation objectives	Non-qualifying habitats and species on which the qualifying habitats and/or species depend	Other comments
Breckland SPA Low rainfall and free-draining soils led to the development of dry heath and grassland communities. Much of Breckland was planted with conifers through the 20th century, and elsewhere arable farming is the predominant land use. The remnants of dry heath and grassland that have survived these changes support heathland-breeding birds, where grazing by sheep and rabbits is sufficiently intensive to create short turf and open ground. These species have also adapted to live in forestry and arable habitats.	Article 4.1, Annex I species: Breeding populations of stone curlew (60.1% GB breeding population), nightjar (12.2% GB breeding population) and woodlark (28.7% GB breeding population).	<p>Current pressures</p> Lack of ground disturbance, under-grazing and inappropriate scrub and weed control.	<p>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring:</p> <ul style="list-style-type: none"> 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. 	<p>In general, the three qualifying species all rely on:</p> <ul style="list-style-type: none"> The site's 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 foraging habitat for these species. In particular, this includes open grassland, heathland and arable land. Open landscape with unobstructed line of sight within nesting, foraging or roosting habitat. <p>The individual qualifying species of the SPA also rely on the following habitats and species:</p> <p>Stone Curlew</p> <ul style="list-style-type: none"> Habitat preferences – this species breeds on grassland, heathlands, arable and sometimes conifer plantations, particularly in areas with heath glades. In addition to this, stone curlew are known to use arable land and heathland for post-breeding flocks. This species tends to prefer foraging within 1km from a nest site²¹. 	None.

²¹ http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=home.showFile&rep=file&fil=Stone_curlewfactsheet.pdf

Site	Summary of reasons for designation	European site pressures and threats	Conservation objectives	Non-qualifying habitats and species on which the qualifying habitats and/or species depend	Other comments
		<p>In addition to the above, the supplementary advice expands on the European site's vulnerabilities as follows:</p> <ul style="list-style-type: none"> Human disturbance – nature, scale, timing and duration of some human activities can result in the disturbance of birds at a level that may substantially affect their behaviour, and consequently affect the long-term viability of the population. Disturbance associated with human activity may include noise, light, sound, vibration, trampling, and presence of people, animals and structures. Air quality – exceeding critical values for air pollutants may result in changes to the habitats of the SPA and therefore affect availability and quality of habitat for birds to nest, forage and roost. Changes in connectivity – may adversely affect qualifying birds from moving safely between foraging and roosting sites. Food availability – inappropriate management may affect the distribution, 		<ul style="list-style-type: none"> Diet – Invertebrates that are found on the ground, including earthworms, ground and dung beetles. <p>Woodlark</p> <ul style="list-style-type: none"> Habitat preferences – this species uses open grassland and heather heaths to breed; and grassland and arable land to forage. This species is also sometimes observed nesting along the margins of arable areas. More recently this species has taken to nesting on fallow land and the system of rotational clear-felling within the conifer plantations has provided ideal breeding conditions for woodlark. This species primarily uses the SPA for breeding; however they are also known to use the SPA during the winter. Diet – insects, including beetles, caterpillars and spiders during the breeding season and seeds during the winter. <p>Nightjar</p> <ul style="list-style-type: none"> Habitat preferences – this species exclusively uses afforested land, including clear fells and young plantations for breeding; and open heathlands, grasslands and arable land for foraging. Diet – Insects, especially 	

Site	Summary of reasons for designation	European site pressures and threats	Conservation objectives	Non-qualifying habitats and species on which the qualifying habitats and/or species depend	Other comments
		<p>abundance and availability of prey and therefore impact qualifying bird populations.</p> <ul style="list-style-type: none"> Loss of open landscape – can reduce bird species ability to detect approaching predators and affect the visibility of display behaviour, as well as affect movement between habitats. Changes in vegetation characteristics – height, cover, variation and composition of vegetation are important for successful nesting, rearing, concealment and roosting. Increased predation – may affect breeding productivity and survival of young. It can also influence bird behaviours, such as abandonment of nest sites or reduction of effective feeding. 		moths and beetles.	
Breckland SAC	Annex I habitats: inland dunes with open <i>Corynephorus</i> and <i>Agrostis</i> grasslands; natural eutrophic lakes with <i>Magnopotamion</i> or <i>Hydrocharition</i> -type vegetation; European dry heaths; semi-natural dry grasslands and scrubland facies on	<p>Current pressures</p> <p>Lack of ground disturbance, under grazing, inappropriate scrub and weed control, inappropriate cutting/mowing.</p> <p>Water pollution: There has been a considerable loss of aquatic species in Ringmere and high nutrient levels</p>	<p>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;</p> <ul style="list-style-type: none"> The extent and distribution of qualifying 	<p>In general, qualifying habitats of the SAC rely on:</p> <ul style="list-style-type: none"> Key species to maintain the structure, function and quality of habitat. Natural vegetation transitions to create diversity and support a range of species. Habitat connectivity to the 	Inland dunes with open <i>Corynephorus</i> and <i>Agrostis</i> grasslands for which this is the only known outstanding locality in the UK and is considered to be rare as its

Site	Summary of reasons for designation	European site pressures and threats	Conservation objectives	Non-qualifying habitats and species on which the qualifying habitats and/or species depend	Other comments
	<p>calcareous substrates; alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i>.</p> <p>Annex II species:</p> <p>Great Crested Newts <i>Triturus cristatus</i>.</p>	<p>recorded in previous water analysis suggest nutrients are impacting the mere. Langmere too shows signs of nutrient enrichment.</p> <p>Changes in species distributions.</p> <p>Potential future threats</p> <p>Air pollution: impact of atmospheric nitrogen deposition.</p> <p>Public access / disturbance – SAC features may be affected through eutrophication (dog fouling, unauthorised fires) and disturbance of soils.</p> <p>Climate change.</p> <p>Habitat fragmentation.</p> <p>Natural England: supplementary advice on conserving and restoring site features</p> <p>In addition to the above, the supplementary advice expands on the European site's vulnerabilities as follows:</p> <p>Habitats</p> <ul style="list-style-type: none"> A change in the range and geographic distribution across the site will reduce its overall area, the local diversity and variations in its structure and 	<p>natural habitats and habitats of qualifying species;</p> <ul style="list-style-type: none"> The structure and function (including typical species) of qualifying natural habitats; The structure and function of the habitats of qualifying species; The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely; The populations of qualifying species; and, The distribution of qualifying species within the site. 	<p>wider landscape to allow for migration, dispersal and genetic exchange of species typical of this habitat.</p> <ul style="list-style-type: none"> Active and ongoing conservation management to protect, maintain or restore these habitats. <p>More specific information has been provided for each qualifying habitat as follows:</p> <p>Inland dunes with open <i>Corynephorus</i> and <i>Agrostis</i> grasslands</p> <ul style="list-style-type: none"> Rabbits and mechanical activity play a key role in maintaining areas of bare ground/sparse vegetation, which are characteristic of this habitat. Annual sand deposition for the continued growth of grey hair-grass <i>Corynephorus canescens</i>. This species is a key feature of this habitat type. <p>European dry heaths and semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>)</p> <ul style="list-style-type: none"> Rabbits are vital to producing the open, tightly grazed swards that characteristic flora and fauna of this habitat depend on. In addition to this, rabbits, moles and mechanical activity play a key role in maintaining areas of bare 	<p>total extent is estimate to be less than 1,000 hectares.</p>

Site	Summary of reasons for designation	European site pressures and threats	Conservation objectives	Non-qualifying habitats and species on which the qualifying habitats and/or species depend	Other comments
		<p>composition, and may undermine its resilience to adapt to future environmental changes.</p> <ul style="list-style-type: none"> Air quality – exceeding critical values for air pollutants may result in changes to habitat by modifying chemical substrates, damaging plant growth, changing vegetation composition and loss of species present in these habitats. Changes to natural soil properties may therefore affect the ecological structure, function and processes associated with this habitat. Increases in undesirable species may result in an adverse effect on the habitats biodiversity, structure and function. Changes to the natural shoreline affect sediment deposition patterns. Increases in sediment loading in lakes can impact the suitability of habitats for macrophytes, invertebrates and fish spawning grounds. Changes in water quality may affect habitat integrity and reduce suitability for characteristic species. 		<p>ground/sparse vegetation, which are characteristic of these habitats.</p> <ul style="list-style-type: none"> Insects, including bees for pollination of flowering plants. <p>Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>)</p> <ul style="list-style-type: none"> Light grazing and browsing from herbivores, such as deer to promote diverse woodland structure and continuous seedling establishment. <p>Natural eutrophic lakes with <i>Magnopotamion</i> or <i>Hydrocharition</i> – type vegetation</p> <ul style="list-style-type: none"> Hydrological isolation and connectivity. Natural hydrological processes to provide the conditions necessary to sustain this habitat. <p>In general, the qualifying species of the SAC rely on:</p> <ul style="list-style-type: none"> The sites ecosystem as a whole (see list of habitats below). Maintenance of populations of species that they feed on (see list of diets below). Habitat connectivity to between breeding and terrestrial habitat to sustain metapopulations. 	

Site	Summary of reasons for designation	European site pressures and threats	Conservation objectives	Non-qualifying habitats and species on which the qualifying habitats and/or species depend	Other comments
		<ul style="list-style-type: none"> Increase impacts from light pollution may impact growth of trees and plants, as well as affect behaviour of species associated with each habitat type. <p>Great Crested Newts</p> <ul style="list-style-type: none"> Poor water quality has potential to adversely affect the structure and function of a habitat type and reduce the availability of food for GCN and their larvae. Changes to habitat connectivity can affect metapopulations. Presence of waterfowl and fish can reduce habitat suitability and increase predation of GCN and/or their larvae. 		<p>Great Crested Newts</p> <ul style="list-style-type: none"> Habitat preferences – requires aquatic habitat, such as ponds for breeding in areas such as pastoral and arable farmland, woodland and grassland. Diet – aquatic invertebrates. 	
<p>Rex Graham Reserve SAC</p> <p>This is a disused chalk pit with developing dry grassland characterised by false oat-grass <i>Arrhenatherum elatius</i>. The site has been selected as it supports the largest population of military orchid <i>Orchis militaris</i> in the UK, comprising more than 95% of the current total</p>	<p>Annex I habitats:</p> <p>Semi-natural dry grasslands and scrubland facies on calcareous substrates (important orchid sites)</p>	<p>Current pressures</p> <p>Changes in species distributions.</p> <p>Potential future threats</p> <p>Air pollution: risk of atmospheric nitrogen deposition – exceeds site-relevant critical load with risk of harmful effects.</p> <p>Habitat fragmentation.</p> <p>Deer.</p> <p>Invasive species.</p> <p>Public access / disturbance –</p>	<p>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;</p> <ul style="list-style-type: none"> The extent and distribution of qualifying natural habitats; The structure and function (including typical species) of qualifying natural habitats; and The supporting processes 	<p>The qualifying habitat of the SAC relies on:</p> <ul style="list-style-type: none"> Key structural, influential and/or distinctive species, such as grazers, surface borers, predators to maintain the structure, function and quality of habitat. Insect, such as bees and flies for pollination of orchids, including the Military orchid, <i>Orchis militaris</i>. The woodland in the north of the SAC acts as a buffer in relation to the road. 	<p>Managed by Suffolk Wildlife Trust</p>

Site	Summary of reasons for designation	European site pressures and threats	Conservation objectives	Non-qualifying habitats and species on which the qualifying habitats and/or species depend	Other comments
population.		<p>ongoing threat to site features from illegal plant collection.</p> <p>Natural England: supplementary advice on conserving and restoring site features</p> <p>In addition to the above, the supplementary advice expands on the European site's vulnerabilities as follows:</p> <ul style="list-style-type: none"> • A change in the range and geographic distribution across the site will reduce its overall area, the local diversity and variations in its structure and composition, and may undermine its resilience to adapt to future environmental changes. • Increases in undesirable species may result in an adverse effect on the habitats structure and function. • Natural vegetation transitions may adversely affect the regeneration of orchids, such as the Military orchid, which are of importance in this habitat. • Changes to natural soil properties may therefore affect the ecological structure, function and processes associated with 	on which qualifying natural habitats rely.	<ul style="list-style-type: none"> • Habitat connectivity to the wider landscape to allow for migration, dispersal and genetic exchange of species typical of this habitat. • Management of habitats to protect, maintain and restore it. 	

Site	Summary of reasons for designation	European site pressures and threats	Conservation objectives	Non-qualifying habitats and species on which the qualifying habitats and/or species depend	Other comments
		<p>this habitat.</p> <ul style="list-style-type: none"> Air quality - exceeding critical values for air pollutants may result in changes to habitat by modifying chemical substrates, damaging plant growth, changing vegetation composition and loss of species present in these habitats. Changes in land-use on off-site habitats may affect the structure and function of the SAC. 			
<p>Devil's Dyke SAC</p> <p>(on FH boundary, part in FH and part in East Cambridgeshire DC)</p> <p>Devil's Dyke consists of a mosaic of CG3 <i>Bromus erectus</i> and CG5 <i>Bromus erectus</i> – <i>Brachypodium pinnatum</i> calcareous grasslands. It is the only known UK semi-natural dry grassland site for lizard orchid <i>Himantoglossum hircinum</i>.</p>	<p>Annex I habitats:</p> <p>Semi-natural dry grasslands and scrubland facies on calcareous substrates (important orchid sites)</p>	<p>Current pressures</p> <p>Inappropriate scrub control</p> <p>Potential future threats</p> <p>Air pollution: impact of atmospheric nitrogen deposition.</p> <p>Natural England: supplementary advice on conserving and restoring site features</p> <p>In addition to the above, the supplementary advice expands on the European site's vulnerabilities as follows:</p> <ul style="list-style-type: none"> A change in the range and geographic distribution across the site will reduce its overall area, the local diversity and variations in its structure and composition, and may 	<p>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:</p> <ul style="list-style-type: none"> 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. 	<p>The SAC's qualifying habitat relies on:</p> <ul style="list-style-type: none"> Thin, well-drained, lime-rich soils associated with chalk and limestone in low moderate altitudes. Key structural, influential and/or distinctive species, such as grazers, surface borers, predators or to maintain the structure, function and quality of habitat. Habitat connectivity to the wider landscape to allow for migration, dispersal and genetic exchange of species typical of this habitat. In particular, for species such as the Lizard orchid, <i>Himantoglossum hircinum</i>. Active and ongoing conservation management is needed to protect, maintain 	None.

Site	Summary of reasons for designation	European site pressures and threats	Conservation objectives	Non-qualifying habitats and species on which the qualifying habitats and/or species depend	Other comments
		<p>undermine its resilience to adapt to future environmental changes.</p> <ul style="list-style-type: none"> Increases in undesirable species may result in an adverse effect on the habitats structure and function. Changes to natural soil properties may therefore affect the ecological structure, function and processes associated with this habitat. Air quality - exceeding critical values for air pollutants may result in changes to habitat by modifying chemical substrates, damaging plant growth, changing vegetation composition and loss of species present in these habitats. 		<p>or restore this habitat.</p>	
<p>Fenland SAC (outside FH)</p> <p>The Fenland SAC is comprised of three fenland Sites of Special Scientific Interest: Woodwalton Fen, Wicken Fen and Chippenham Fen.</p> <p>Each site generally consists of standing water bodies, ditch systems, bogs, marshes and broad-leaved woodland carr.</p>	<p>Annex I habitats: Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinia caerulea</i>)</p> <p>Annex II species: Spined Loach (<i>Cobitis taenia</i>), Great Crested Newt (<i>Triturus cristatus</i>)</p>	<p>Current pressures</p> <p>Water pollution – nutrient enrichment of Chippenham Fen component, fed from a mixture of groundwater, rainfall and surface runoff.</p> <p>Hydrological changes related to public water supply abstraction.</p> <p>Air pollution: impact of atmospheric nitrogen deposition</p> <p>Potential future threats</p>	<p>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;</p> <ul style="list-style-type: none"> The extent and distribution of qualifying natural habitats and habitats of qualifying species; The structure and function (including typical species) of qualifying 	<p>In general, qualifying habitats of the SAC rely on:</p> <ul style="list-style-type: none"> Key structural, influential and/or distinctive species, such as grazers, surface borers, predators or to maintain the structure, function and quality of habitat. Habitat connectivity to the wider landscape to allow for migration, dispersal and genetic exchange of species typical of this habitat. Active and ongoing 	<p>National Trust undertaking remedial land management work.</p>

Site	Summary of reasons for designation	European site pressures and threats	Conservation objectives	Non-qualifying habitats and species on which the qualifying habitats and/or species depend	Other comments
		<p>None identified.</p> <p>Natural England: supplementary advice on conserving and restoring site features</p> <p>In addition to the above, the supplementary advice expands on the European site's vulnerabilities as follows:</p> <ul style="list-style-type: none"> A change in the range and geographic distribution across the site will reduce its overall area, the local diversity and variations in its structure and composition, and may undermine its resilience to adapt to future environmental changes. Increases in undesirable species may result in an adverse effect on the habitats structure and function. Changes to natural soil properties may therefore affect the ecological structure, function and processes associated with this habitat. Poor water quality, as a result of agricultural process and inadequate quantities of water can adversely affect the structure and function of this habitat type. 	<p>natural habitats;</p> <ul style="list-style-type: none"> The structure and function of the habitats of qualifying species; The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely; The populations of qualifying species; and, <p>The distribution of qualifying species within the site.</p>	<p>conservation management is needed to protect, maintain or restore this habitat.</p> <p>For each habitat, more specific examples have been provided.</p> <p><i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinia caerulea</i>); Purple moor-grass meadows</p> <ul style="list-style-type: none"> Upwellings and springs from the aquifer provide water to the site. Natural hydrological processes to provide the conditions necessary to sustain this habitat. <p>Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i>; Calcium-rich fen dominated by great fen sedge (saw sedge)</p> <ul style="list-style-type: none"> Upwellings and springs from the aquifer provide water to the site. Natural hydrological processes to provide the conditions necessary to sustain this habitat. <p>In general, the qualifying species of the SAC rely on:</p> <ul style="list-style-type: none"> The sites ecosystem as a whole (see list of habitats below). Maintenance of populations of species that they feed on (see list of diets below). Habitat connectivity is 	

Site	Summary of reasons for designation	European site pressures and threats	Conservation objectives	Non-qualifying habitats and species on which the qualifying habitats and/or species depend	Other comments
		<ul style="list-style-type: none"> Air quality - exceeding critical values for air pollutants may result in changes to habitat by modifying chemical substrates, damaging plant growth, changing vegetation composition and loss of species present in these habitats. Increased cover of trees and shrubs can result in desiccation of these habitats. Changes in land use on offsite habitat can result in deterioration of habitat within the SAC. Changes in sediment may lead to sub-optimal conditions for spined loach. Inadequate quantities of water can adversely affect the structure and function of this habitat type. 		<p>important for the viability of these species populations.</p> <p>Spined loach</p> <ul style="list-style-type: none"> Habitat preferences – small streams, large rivers and both large and small drainage ditches with patchy cover of submerged (and possibly emergent) macrophytes. Diet – food particles extracted from fine sediment. Great Crested Newts Habitat preferences – requires aquatic habitat, such as ponds for breeding in areas such as pastoral and arable farmland, woodland and grassland. Diet – aquatic invertebrates. 	
<p>Ouse Washes SAC, SPA and Ramsar site (outside FH)</p> <p>An extensive area of seasonally flooding wet grassland ('washland') with a diverse and rich ditch fauna and flora located on a major tributary of The Wash. The washlands support both</p>	<p><u>SAC qualifying species</u></p> <p>Annex II: Spined loach <i>Cobitis taenia</i></p> <p><u>SPA qualifying species</u></p> <p>Article 4.1, Annex 1 species (breeding season):</p> <p><i>Ruff Philomachus pugnax</i>; Spotted Crane <i>Porzana porzana</i></p>	<p>Current pressures</p> <p>Inappropriate water levels – interest features are being adversely affected by increased flooding.</p> <p>Potential future threats</p> <p>Water pollution.</p>	<p>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving...</p> <p>- the Favourable Conservation Status of its Qualifying Features (SAC), or</p> <p>- the aims of the Wild Birds Directive (SPA)</p> <p>...by maintaining or restoring:</p>	<p>In general, the qualifying species of the SAC, SPA and Ramsar rely on:</p> <ul style="list-style-type: none"> The sites ecosystem as a whole (see list of habitats below). Maintenance of populations of species that they feed on (see list of diets below). Habitat connectivity is important for the viability of 	<p>Long term tidal strategy - regular flooding- severe siltation of Great Ouse River. Discharges into River Lark, River Little Ouse (and various other smaller watercourses in Forest Heath) could drain into</p>

Site	Summary of reasons for designation	European site pressures and threats	Conservation objectives	Non-qualifying habitats and species on which the qualifying habitats and/or species depend	Other comments
breeding and wintering waterbirds.	<p>Annex I species (over winter): Bewick's Swan <i>Cygnus columbianus bewickii</i>; Hen Harrier <i>Circus cyaneus</i>; Ruff <i>Philomachus pugnax</i>; Whooper Swan <i>Cygnus cygnus</i>,</p> <p>Article 4.2 (migratory species – breeding season):</p> <p>Black-tailed Godwit <i>Limosa limosa limosa</i>; Gadwall <i>Anas strepera</i>; Shoveler <i>Anas clypeata</i></p> <p>Article 4.2 (migratory species – over winter):</p> <p>Black-tailed Godwit <i>Limosa limosa islandica</i>; Gadwall <i>Anas strepera</i>; Pintail <i>Anas acuta</i>; Pochard <i>Aythya farina</i>; Shoveler <i>Anas clypeata</i>; Wigeon <i>Anas penelope</i></p> <p>Article 4.2 Assemblage qualification: regularly supports at least 20,000 waterfowl</p> <p><u>Ramsar criteria</u></p> <p>1. Extensive area of seasonally-flooding washland</p> <p>2. Nationally scarce aquatic plants, relict invertebrates, assemblage of nationally rare breeding</p>		<ul style="list-style-type: none"> The extent and distribution of the habitats of qualifying species/features The structure and function of the habitats of the qualifying species/features The supporting processes on which the habitats of qualifying species/features rely The populations of qualifying species/features, and, The distribution of qualifying species/features within the site. 	<p>this species population.</p> <p>Spined loach</p> <ul style="list-style-type: none"> Habitat preferences – small streams, large rivers and both large and small drainage ditches with patchy cover of submerged (and possibly emergent) macrophytes. Diet – food particles extracted from fine sediment. <p>In general, the qualifying bird species of the SAC, SPA and Ramsar rely on:</p> <ul style="list-style-type: none"> The sites ecosystem as a whole (see list of habitats below). Maintenance of populations of species that they feed on (see list of diets below). Off-site habitat, which provide foraging habitat for these species. Open landscape with unobstructed line of sight within nesting, foraging or roosting habitat. <p>Ruff</p> <ul style="list-style-type: none"> Habitat preferences – grassy tundra, lakes, farmland, on migration mudflat. Diet – invertebrates, especially insects, some plant material <p>Spotted Crane</p> <ul style="list-style-type: none"> Habitat preferences – 	Great Ouse River and to Ouse Washes SPA/SAC. Large land holdings by RSPB, Cambridgeshire Wildlife Trust and Wetlands and Wildfowl Trust.

Site	Summary of reasons for designation	European site pressures and threats	Conservation objectives	Non-qualifying habitats and species on which the qualifying habitats and/or species depend	Other comments
	<p>waterfowl.</p> <p>5. Bird assemblages of international importance.</p> <p>6. Water birds for potential future consideration</p>			<p>swamps and marsh.</p> <ul style="list-style-type: none"> Diet – small aquatic invertebrates, parts of aquatic plants. <p>Bewick's Swan</p> <ul style="list-style-type: none"> Habitat preferences – lakes, ponds and rivers, also estuaries on migration. Diet – plant material in water and flooded pasture. <p>Hen Harrier</p> <ul style="list-style-type: none"> Habitat preferences – moor, marsh, steppe and fields. Diet – mostly, small birds, nestlings and small rodents. <p>Whooper Swan</p> <ul style="list-style-type: none"> Habitat preferences – lakes, marshes & rivers. Diet – aquatic vegetation also grazes on land. <p>Black-tailed Godwit</p> <ul style="list-style-type: none"> Habitat preferences – marshy grassland and steppe, on migration mudflats. Diet – invertebrates, some plant material. <p>Gadwall</p> <ul style="list-style-type: none"> Habitat preferences – marshes, lakes, on migration also rivers, estuaries. Diet – Leaves, shoots. <p>Pintail</p> <ul style="list-style-type: none"> Habitat preferences – lakes, 	

Site	Summary of reasons for designation	European site pressures and threats	Conservation objectives	Non-qualifying habitats and species on which the qualifying habitats and/or species depend	Other comments
				<p>rivers and marsh.</p> <ul style="list-style-type: none"> Diet – omnivorous, feeds on mud bottom at depths of 10-30cm. <p>Pochard</p> <ul style="list-style-type: none"> Habitat preferences – lakes and slow rivers on migration also estuaries. Diet – mostly plant material, also small animals. <p>Shoveler</p> <ul style="list-style-type: none"> Habitat preferences – shallow lakes, marsh, reedbed and wet meadow. Diet – omnivorous, especially small insects, crustaceans, molluscs and seeds. <p>Wigeon</p> <ul style="list-style-type: none"> Habitat preferences – marsh, lakes, open moor, on migration also estuaries. Diet – mostly leaves, shoots, rhizomes and some seeds. 	
Redgrave and South Lopham Fens Ramsar (outside FH) The site is an extensive example of lowland base-rich valley, remarkable for its lack of fragmentation. The diversity of the site is due to the lateral and longitudinal zonation of the vegetation	<u>Ramsar criteria</u> 1. The site is an extensive example of spring-fed lowland base-rich valley, remarkable for its lack of fragmentation. 2. The site supports many rare and scarce invertebrates, including a population of the fen raft spider <i>Dolomedes</i>	Current pressures Inappropriate scrub control Inappropriate water levels - Historical evidence suggests that water levels have significantly dropped over time and as a result habitats and features have been damaged. Air Pollution: impact of atmospheric nitrogen deposition - Nitrogen		In general, the qualifying habitats of the SAC rely on: <ul style="list-style-type: none"> Key structural, influential and/or distinctive species, such as grazers, surface borers, predators to maintain the structure, function and quality of habitat. Insect, such as bees and flies for pollination of flowering plants. Habitat connectivity to the 	

Site	Summary of reasons for designation	European site pressures and threats	Conservation objectives	Non-qualifying habitats and species on which the qualifying habitats and/or species depend	Other comments
types characteristic of valley mires, such as dry birch woodland, scrub and carr, floristically-rich fen grassland, mixed fen, wet heath and areas of reed and saw sedge. The site supports many rare and scarce invertebrates, including a population of the fen raft spider <i>Dolomedes plantarius</i> .	<i>plantarius</i> . 3. The site supports many rare and scarce invertebrates, including a population of the fen raft spider <i>Dolomedes plantarius</i> . The diversity of the site is due to the lateral and longitudinal zonation of the vegetation types characteristic of valley mires.	deposition exceeds site relevant critical loads. Water pollution - Poor water quality arising from agricultural run-off particularly from nearby outdoor poultry and pig units causes nutrient enrichment and can lead to a reduction in biodiversity. Potential future threats None identified		wider landscape to allow for migration, dispersal and genetic exchange of species typical of this habitat. • Management of habitats to protect, maintain and restore it. In general, the qualifying species of the SAC 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). Fen raft spider • Habitat preference – pool margins. • Diet – aquatic invertebrates. Invertebrates • Habitat preferences – spring-fed lowland habitat. • Diets – flowering plants, organic matter and other invertebrate species for food resources.	
The Wash SPA/Ramsar (outside FH) The largest estuarine system in the UK, fed by the rivers Witham, Welland, Nene and Great Ouse that drain much of the east Midlands of England.	<u>SPA qualifying species</u> Article 4.1, Annex 1 species (breeding season): Common Tern <i>Sterna hirundo</i> ; Little Tern <i>Sterna albifrons</i> ; Marsh Harrier <i>Circus aeruginosus</i>	Current pressures Inappropriate water levels - structures which control water along the North Norfolk Coast have fallen into disrepair, preventing appropriate water level controls for breeding birds. Change in species distribution.	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	In general, the qualifying 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	None.

Site	Summary of reasons for designation	European site pressures and threats	Conservation objectives	Non-qualifying habitats and species on which the qualifying habitats and/or species depend	Other comments
<p>The Wash comprises very extensive saltmarshes, major intertidal banks of sand and mud, shallow waters and deep channels.</p> <p>The intertidal mudflats and saltmarshes represent one of Britain's most important winter feeding areas for waders and wildfowl outside of the breeding season. The saltmarsh and shingle communities are of considerable botanical interest and the mature saltmarsh is a valuable bird breeding zone. Also very important as a breeding ground for Common seals.</p>	<p>Article 4.1, Annex 1 species (over winter):</p> <p>Avocet <i>Recurvirostra avosetta</i>; Bar-tailed Godwit <i>Limosa lapponica</i>; Golden Plover <i>Pluvialis apricaria</i>; Whooper Swan <i>Cygnus cygnus</i></p> <p>Article 4.2 (migratory):</p> <p>Ringed Plover <i>Charadrius hiaticula</i>; Sanderling <i>Calidris alba</i>; Black-tailed Godwit <i>Limosa limosa islandica</i>; Curlew <i>Numenius arquata</i>; Dark-bellied Brent Goose <i>Branta bernicla bernicla</i>; Dunlin <i>Calidris alpina alpina</i>; Grey Plover <i>Pluvialis squatarola</i>; Knot <i>Calidris canutus</i>; Oystercatcher <i>Haematopus ostralegus</i>; Pink-footed Goose <i>Anser brachyrhynchus</i>; Pintail <i>Anas acuta</i>; Redshank <i>Tringa tetanus</i>; Shelduck <i>Tadorna tadorna</i>; Turnstone <i>Arenaria interpres</i></p> <p>Article 4.2 Assemblage qualification:</p> <p>regularly supports at least 20,000 waterfowl</p>	<p>Potential future water threats</p> <p>Public access/Disturbance – ongoing threat to site from recreational activities and low flying aircraft.</p> <p>Fisheries: Recreational marine and estuarine – potential to impact on fish stocks as a resource for designated birds.</p> <p>Inappropriate coastal management.</p> <p>Fisheries: Commercial and marine estuaries – risk to site features due to uncertainty of current management.</p> <p>Predation.</p> <p>Coastal squeeze.</p>	<p>habitats of the qualifying features</p> <ul style="list-style-type: none"> The structure and function of the habitats of the qualifying features The supporting processes on which the habitats of the qualifying features rely The population of each of the qualifying features, and, The distribution of the qualifying features within the site. 	<p>provide foraging habitat for these species.</p> <ul style="list-style-type: none"> Open landscape with unobstructed line of sight within nesting, foraging or roosting habitat. <p>Common Tern</p> <ul style="list-style-type: none"> Habitat preferences – sandy seacoasts, in winter marshes, estuaries. Diet – mostly fish, also crustaceans. <p>Little Tern</p> <ul style="list-style-type: none"> Habitat preference – seacoasts, rivers and lakes. Diet – small fish and invertebrates. <p>Marsh Harrier</p> <ul style="list-style-type: none"> Habitat preference – marsh and reedbeds. Diet – small birds and mammals <p>Avocet</p> <ul style="list-style-type: none"> Habitat preference – mudflats, lagoons, sandy beaches. Diet – invertebrates, especially insects, crustaceans, worms and small fish. <p>Bar-tailed Godwit</p> <ul style="list-style-type: none"> Habitat preference – coastal tundra, on migration mudflats, flooded fields. 	

Site	Summary of reasons for designation	European site pressures and threats	Conservation objectives	Non-qualifying habitats and species on which the qualifying habitats and/or species depend	Other comments
				<ul style="list-style-type: none"> Diet – invertebrates, especially insects, molluscs, crustaceans and worms. <p>Golden Plover</p> <ul style="list-style-type: none"> Habitat preference - wet moor, on migration pasture and estuaries. Diet – invertebrates, especially beetles and earthworms. <p>Whooper Swan</p> <ul style="list-style-type: none"> Habitat preference – lakes, marshes and rivers. Diet - aquatic vegetation, also grazes on land. <p>Ringed Plover</p> <ul style="list-style-type: none"> Habitat preference – sandy areas with low vegetation, on migration estuaries. Diet – invertebrates during the summer; and primarily marine worms, crustaceans and molluscs during the winter. <p>Sanderling</p> <ul style="list-style-type: none"> Habitat preference – coastal habitats. Diet - small invertebrates. <p>Black-tailed Godwit</p> <ul style="list-style-type: none"> Habitat preference – marshy grassland and steppe, on migration mudflats. Diet – invertebrates, also some plant material. 	

Site	Summary of reasons for designation	European site pressures and threats	Conservation objectives	Non-qualifying habitats and species on which the qualifying habitats and/or species depend	Other comments
				<p>Curlew</p> <ul style="list-style-type: none"> Habitat preference – marsh, grassland, on migration mudflats. Diet – invertebrates, including earthworms, leatherjackets, beetles, spiders and caterpillar. <p>Dark-bellied Brent Goose</p> <ul style="list-style-type: none"> Habitat preference – on migration marshes and estuaries. Diet – eelgrass (<i>Zostera</i>), also vegetation by grazing on land or shallow water. <p>Dunlin</p> <ul style="list-style-type: none"> Habitat preference – moor, heath, on migration estuaries and coasts. Diet – invertebrates. <p>Grey Plover</p> <ul style="list-style-type: none"> Habitat preference – on migration pasture & estuaries. Diet – invertebrates during the summer; and primarily marine worms, crustaceans and molluscs during the winter. <p>Knot</p> <ul style="list-style-type: none"> Habitat preference – coastal habitat. Diet - insects and plant material during the summer; and inter-tidal invertebrates, 	

Site	Summary of reasons for designation	European site pressures and threats	Conservation objectives	Non-qualifying habitats and species on which the qualifying habitats and/or species depend	Other comments
				<p>especially molluscs during the winter.</p> <p>Oystercatcher</p> <ul style="list-style-type: none"> Habitat preference – sandy, muddy, rocky beaches. Diet – bivalves especially cockles, mussels, <i>Tellins macoma</i> and earthworms. <p>Pink-footed Goose</p> <ul style="list-style-type: none"> Habitat preference - rivers and wet meadows. Diet - plant material, including roots, tubers, shoots and leaves. <p>Pintail</p> <ul style="list-style-type: none"> Habitat preference – lakes, rivers and marsh. Diet – omnivorous, feeds on mud bottom at depths of 10-30cm. <p>Redshank</p> <ul style="list-style-type: none"> Habitat preference – rivers, wet grassland, moors and estuaries. Diet – invertebrates, especially earthworms, crane fly larvae (inland), and crustaceans, molluscs, marine worms (estuaries). <p>Shelduck</p> <ul style="list-style-type: none"> Habitat preference – coasts, estuaries and lakes. Diet – mostly invertebrates, especially insects, molluscs 	

Site	Summary of reasons for designation	European site pressures and threats	Conservation objectives	Non-qualifying habitats and species on which the qualifying habitats and/or species depend	Other comments
				<p>and crustaceans.</p> <p>Turnstone</p> <ul style="list-style-type: none"> Habitat preference – on migration beaches & rocky coasts. Diet – summer, mostly insects, wider range of invertebrates and other material at other times. 	
The Wash and North Norfolk Coast SAC (outside FH)	<p>Annex I habitats: Sandbanks slightly covered by sea water all the time; mudflats and sandflats not covered by sea water at low tide; large shallow inlets and bays; reefs; <i>Salicornia</i> and other annuals colonising mud and sand; Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>); Mediterranean and thermo-Atlantic halophilous scrubs (<i>Sarcocornetea fruticosi</i>); coastal lagoons.</p> <p>Annex II species: Common seal (<i>Phoca vitulina</i>); otter (<i>Lutra lutra</i>)</p>	<p>Current pressures</p> <p>Change in land management</p> <p>Air Pollution: impact of atmospheric nitrogen deposition</p> <p>Potential future water threats</p> <p>Public access/Disturbance – ongoing threat to site from recreational activities and low flying aircraft</p> <p>Siltation</p> <p>Fisheries: Recreational marine and estuarine - potential to impact on fish stocks as a resource for designated birds</p> <p>Invasive species</p> <p>Inappropriate coastal management</p> <p>Fisheries: Commercial and marine estuaries - risk to site features due to uncertainty of current management. No restriction on harvesting methodology</p>	<p>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;</p> <ul style="list-style-type: none"> The extent and distribution of qualifying natural habitats and habitats of qualifying species The structure and function (including typical species) of qualifying natural habitats The structure and function of the habitats of qualifying species The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely The populations of qualifying species, and, The distribution of qualifying species within the site. 	<p>In general, the qualifying habitats of the Ramsar rely on:</p> <ul style="list-style-type: none"> A range of coastal factors, including salinity, sedimentation, sea level, turbidity and elevation, which influence the interdependent intertidal, subtidal and terrestrial habitats. <p>More specific examples have been provided below.</p> <p>Sandbanks which are slightly covered by sea water all the time</p> <ul style="list-style-type: none"> Reef-building species such as <i>Sabellaria spinulosa</i> help to stabilise the sediment, allowing the colonisation of sessile animals. <p>In general, the qualifying species of the Ramsar rely on:</p> <ul style="list-style-type: none"> The sites ecosystem as a whole (see list of habitats below). Maintenance of populations of species that they feed on (see list of diets below). Off-site habitat, which 	None.

Site	Summary of reasons for designation	European site pressures and threats	Conservation objectives	Non-qualifying habitats and species on which the qualifying habitats and/or species depend	Other comments
		Coastal squeeze		<p>provide foraging and shelter habitat for these species.</p> <p>Common Seal</p> <ul style="list-style-type: none"> Habitat preference – open coastal waters, beaches, rocky shores, sandbars and islands. Diet - fish, squid, octopus and crustaceans such as shrimp. <p>Otter</p> <ul style="list-style-type: none"> Habitat preference – waterbodies, including rivers and coastal habitat, vegetated river banks, islands, reedbeds and woodland. Diet - primarily eels, salmonids and crayfish. 	
Chippenham Fen Ramsar (outside FH)	<p>Criterion 1: Spring-fed calcareous basin mire with a long history of management, which is partly reflected in the diversity of present-day vegetation. Criterion 2: The invertebrate fauna is very rich, partly due to its transitional position between Fenland and Breckland. The species list is very long, including many rare and scarce invertebrates characteristic of ancient fenland sites in Britain.</p> <p>Criterion 3: The site supports diverse</p>	Pressures and threats documented in the Fenland SAC Site Improvement Plan relate to the designated features of the SAC (see above) but are also likely to be relevant to the designated Ramsar features, particularly hydrological changes which are cited in the Ramsar Information Sheet.	Not applicable.	<p>In general, the qualifying habitats of the Ramsar rely on:</p> <ul style="list-style-type: none"> Key structural, influential and/or distinctive species, such as grazers, surface borers, predators to maintain the structure, function and quality of habitat. Insect, such as bees and flies for pollination of flowering plants. Habitat connectivity to the wider landscape to allow for migration, dispersal and genetic exchange of species typical of this habitat. Management of habitats to protect, maintain and restore 	Inappropriate scrub control, cutting and mowing in several units contributing to unfavourable no change status.

Site	Summary of reasons for designation	European site pressures and threats	Conservation objectives	Non-qualifying habitats and species on which the qualifying habitats and/or species depend	Other comments
	vegetation types, rare and scarce plants. The site is the stronghold of Cambridge milk parsley (<i>Selinum carvifolia</i>).			<p>it.</p> <p>In general, the qualifying species of the Ramsar rely on:</p> <p>Invertebrates</p> <ul style="list-style-type: none"> Diets – flowering plants, organic matter and other invertebrate species for food resources. 	
Wicken Fen Ramsar (outside FH)	<p>Criterion 1: One of the most outstanding remnants of the East Anglian peat fens. The area is one of the few which has not been drained.</p> <p>Traditional management has created a mosaic of habitats from open water to sedge and litter fields.</p> <p>Criterion 2: The site supports one species of British Red Data Book plant, fen violet (<i>Viola persicifolia</i>), which survives at only two other sites in Britain. It also contains eight nationally scarce plants and 121 British Red Data Book invertebrates.</p>	Pressures and threats documented in the Fenland Site Improvement Plan relate to the designated features of the SAC (see above) but are also likely to be relevant to the designated Ramsar features, particularly hydrological changes which are cited in the Ramsar Information Sheet.	Not applicable.	<p>In general, the qualifying habitats of the Ramsar rely on:</p> <ul style="list-style-type: none"> Key structural, influential and/or distinctive species, such as grazers, surface borers, predators to maintain the structure, function and quality of habitat. Insect, such as bees and flies for pollination of flowering plants. Habitat connectivity to the wider landscape to allow for migration, dispersal and genetic exchange of species typical of this habitat. Management of habitats to protect, maintain and restore it. <p>In general, the qualifying habitats of the Ramsar rely on:</p> <p>Invertebrates</p> <ul style="list-style-type: none"> Diets – flowering plants, organic matter and other invertebrate species for food resources. 	Issues caused by inappropriate water levels and scrub control in some areas. WLMP in place to address these issues.

Key sources: Natural England's Conservation Objectives for European Sites and Supplementary advice on conserving and restoring site features (where available) (<http://publications.naturalengland.org.uk/category/5458594975711232>), Site Improvement Plans for European sites (<http://publications.naturalengland.org.uk/category/5458594975711232>), SSSI condition assessments (<https://designatedsites.naturalengland.org.uk/>), General descriptions for Special Area of Conservation features and Special Protection Area supporting habitats (https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/520290/SAC-feature-descriptions.pdf); JNCC's Natura 2000 Standard Data Forms for SACs and SPAs and Ramsar Information Sheets (www.jncc.gov.uk); British Trust for Ornithology 'About Birds' (<https://www.bto.org/about-birds>); RSPB 'Bird A-Z' (<https://www.rspb.org.uk/birds-and-wildlife/wildlife-guides/bird-a-z/>); Buglife (<https://www.buglife.org.uk/>)

Appendix 3

Consultation comments on the HRA at previous plan-making stages

Consultation on the 'Issues and Options' SIR

Consultee	Summary of comment (N.B. Section and page numbers refer to the HRA report at Issues and Options stage)	LUC response
Natural England (statutory consultee)		
Natural England 23256	Natural England is broadly satisfied that the assessments have been prepared in accordance with the requirements of the Conservation (of Habitats and Species) Regulations (2010). We concur with the conclusion of the screening assessment that significant effects to European sites cannot be ruled out for either option, and agree with the conclusions of the housing distribution options screening matrix.	Noted.
Natural England 23256	However we note there are some areas that are lacking detail or require clarification; we have therefore provided detailed advice below concerning the structure of the report and any further information that we consider necessary.	In light of the detailed issues raised by Natural England, the categorisation of types of potential effect and the screening assumptions set out at Issues and Options stage was revised for subsequent stages of HRA through discussion and correspondence with Natural England.
Natural England 23256	<i>HRA para 4.18</i> We note that the tone of the report sometimes reflect a feeling that there is little evidence that a particular environmental policy is required, e.g. in terms of the 400m buffer, put in place to protect woodlark and nightjar. Taking all the above into account, we recommend that these sections are reviewed and further detail provided on the actual ecological effects involved. In our view there is perhaps too much focus on the previous HRA, whereas the sections that relate to the present appear lacking in detail.	Later iterations of the HRA reduce the focus on the approach taken in the HRA of the Core Strategy and provide a summary of the available evidence base in relation to avoidance of built development by woodlark and nightjar.
Natural England 23256	<i>HRA para 4.25</i> We would like to take this opportunity to explain why we consider that, despite the recent updated research from <i>Lilley et al. (2013)</i> , a cautious approach should be taken with regards to applications which are within the 1500m buffer but next to other developments. It is our concern that, by allowing applications to progress at the project level without an HRA there will be no opportunity to assess whether rather than simply infilling, successive applications may act to essentially bring the buffer closer, due to the number of applications at a specific distance from the SPA	Noted.
Natural England	<i>HRA para 4.78</i> We welcome the focus on applications within a distance of 7.5km to monitor for recreational disturbance. We can confirm that Natural	Noted.

Consultee	Summary of comment (N.B. Section and page numbers refer to the HRA report at Issues and Options stage)	LUC response
	England agrees that effects to woodlark, nightjar and stone curlew are not likely outside of this range.	
Non-statutory consultees		
Suffolk County Council 23625	<p>The development of a strategic approach to green infrastructure and ecological mitigation could, if implemented, assist in delivering housing and economic growth, with a planned and programmed approach to managing the cumulative pressures on habitats and species.</p> <p>The County Council is already working with authorities in East Suffolk to consider how to manage pressures on European sites. The same assistance can be provided to the former Forest Heath District Council (and neighbouring authorities) if helpful. In particular, improvements to the County Council's Rights of Way Network could be useful in managing recreational pressures.</p>	Noted.
Pegasus Group on behalf of Newmarket Horsemen's Group 23259	<p><i>HRA para 2.9 and Table 2.2</i></p> <p>Insufficient information included on reasons for designation, threats and reasons for adverse conditions of European sites.</p>	European site information, in particular on pressures and threats, was revised to reflect the latest information available in Natural England's Site Improvement Plans.
Pegasus Group on behalf of Newmarket Horsemen's Group 23259	<p><i>HRA Para 3.3</i></p> <p>Other plans which should have been included are the South Cambridgeshire Local Plan, the Cambridgeshire and Suffolk Waste and Minerals Plan and any transport plan for Cambridgeshire.</p>	Review of other plans and projects was been extended for subsequent stages of HRA.
Pegasus Group on behalf of Newmarket Horsemen's Group 23259	<p><i>HRA Para 4.19</i></p> <p>The condition restricting development '1500m of any 1 km grid which has supported 5 or more nesting attempts by stone curlew since 1995'. This condition potentially becomes more onerous as time progresses as more sites may be used for nesting. It should be taken for the last 10 years as was envisaged at the time when the 2009 HRA was in preparation. Further the use of a 1 km grid is excessively onerous. Nevertheless the need for Appropriate Assessment cannot be screened out.</p>	The spatial data on stone curlew nesting attempts zone used to carry out this element of the HRA screening at Issues and Options stage related to 1995-2006 and was the same as that used for the HRA of the Core Strategy. FHDC had commissioned a study to update this spatial data but the results were not available at the Issues and Options stage. Updated data were used once available at the Proposed Submission and subsequent stages.
Pegasus Group on behalf of Newmarket	<p><i>HRA Para 4.49</i></p> <p>No evidence has been put forward to reduce the constraint zone for disturbance from 10 km as recommended by Fearnley et al (2010) to</p>	Disagree. The 10 km distance referred to by (39) is measured from home postcodes to survey locations within Thetford Forest whilst the 7.5 km distance identified by analysis in the HRA of the Breckland Site Specific Policies and Proposals Document (59) is measured from home

Consultee	Summary of comment (N.B. Section and page numbers refer to the HRA report at Issues and Options stage)	LUC response
Horsemen's Group 23259	7.5 km; a distance of 10 km should be retained and an Appropriate Assessment undertaken with this in mind.	postcodes to the boundary of Thetford Forest. (39) state that the two sets of findings are similar. See paragraphs 5.87 to 5.91 of this HRA report for further discussion.
Pegasus Group on behalf of Newmarket Horsemen's Group 23259	<i>HRA Para 4.68 and following</i> Negative effects of urban development do not only affect Breckland sites and further consideration needs to be given to this topic.	Categorisation of effect types and the European sites that are vulnerable to each of these was reassessed, informed by Natural England's Site Improvement Plans.
Pegasus Group on behalf of Newmarket Horsemen's Group 23259	<i>HRA para 4.90</i> The EA flood risk maps together with the site descriptions should help ascertain which sites might be affected by increased flooding. For example, Devil's Dyke is a raised chalk embankment and Rex Graham Reserve a chalk pit. This should be clarified to aid scoping.	A precautionary approach was taken in identifying European sites potentially affected by water environment issues due to an absence of up to date, spatially specific information. The Council had commissioned an updated Water Cycle Strategy to inform the SIR and SALP and the HRA of these documents but the results of this study were not available at the time of the HRA of the Issues and Options. The issue was revisited once this became available.
Pegasus Group on behalf of Newmarket Horsemen's Group 23259	<i>HRA Para 4.114 and following</i> 1. This consideration is inadequate. The position with regard to the potential effects of abstractions has been considered in detail with regard to the west of the region in detail at the recent Hatchfield Farm Inquiry and this evidence has not been considered. 2. Important sources e.g. Reviews of Consents and Management Plans have been omitted. 3. No consideration has been given to identifying which sites are vulnerable to changes in groundwater. 4. There has also been no consideration of the Breckland SAC.	See response to 'HRA Para 4.90' above.
Pegasus Group on behalf of Newmarket Horsemen's Group 23259	<i>HRA Para 4.122</i> Mott MacDonald assessed the scheme options, for example the effects of the pipeline routes not the water supply implications and this is not clear in the HRA. The conclusion in relation to this point is not therefore correct.	See response to 'HRA Para 4.90' above.
Pegasus Group on behalf of Newmarket Horsemen's Group 23259	<i>HRA Para 4.123</i> Detailed consideration was given to the breakdown of housing in relation to the Resource Zones at the recent Hatchfield Farm Inquiry and has not been considered.	See response to 'HRA Para 4.90' above.

Consultee	Summary of comment (N.B. Section and page numbers refer to the HRA report at Issues and Options stage)	LUC response
Pegasus Group on behalf of Newmarket Horsemen's Group 23259	<i>HRA Para 4.123 and 4.124</i> There are already underlying problems (re. assessment of potential effects of water abstraction) which have not been addressed.	See response to 'HRA Para 4.90' above.
Pegasus Group on behalf of Newmarket Horsemen's Group 23259	<i>HRA Para 4.127</i> This erroneously states that Devil's Dyke is heathland when it is in fact chalk grassland. This is repeated throughout this section and affects the conclusions.	Accepted that Devil's Dyke was described as having designated heathland rather than chalk grassland plant species and this has been corrected in the current stage of HRA. Both types of habitat are sensitive to air pollution from roads (nutrient build-up from nitrogen deposition), therefore broad conclusions were unaffected.
Pegasus Group on behalf of Newmarket Horsemen's Group 23259	<i>HRA Para 4.138</i> No consideration has been given to any Highways Agency plans.	HRA screening in relation to effects on air quality was amended at Proposed Submission and subsequent stages to rely on the Council's Transport Study.
Pegasus Group on behalf of Newmarket Horsemen's Group 23259	<i>HRA Paras 5.5 and 5.6</i> There were failures in the Appropriate Assessment undertaken in 2009 such that issues, for example water supply were not satisfactorily considered and could have been subject to challenge. On the grounds above and on the basis of a different data set since the publication in 2009 it cannot be concluded that likely significant effects from Option 1 will not arise.	The consultee's opinion on the soundness on the HRA of the 2009 Core Strategy is noted but the Inspector's report into the examination of the Core Strategy concluded that subject to recommended changes to Policy CS2, " <i>there would be no significant harm to the conservation of any European and nationally protected biodiversity sites as a result of the policies and proposals within this DPD</i> ". In any event, para. 5.6 the HRA screening at Issues and Options stated that the potential for the total housing distribution options to have likely significant effects had been reassessed.
Pegasus Group on behalf of Newmarket Horsemen's Group 23259	<i>HRA Table 5.1</i> Various comments, mainly referencing those already made above.	The approach to HRA screening of the total housing provision was revised after Issues and Options stage.
Pegasus Group on behalf of Newmarket Horsemen's Group 23259	<i>HRA Para 5.7</i> This should be a much fuller assessment identifying sites and possible effects.	The approach to consideration of in combination effects was revised after Issues and Options stage.
Pegasus Group on behalf of Newmarket	<i>HRA Para 6.4</i> Water supply: this is not strictly true because water availability varies	See response to 'HRA Para 4.90' above.

Consultee	Summary of comment (N.B. Section and page numbers refer to the HRA report at Issues and Options stage)	LUC response
Horsemen's Group 23259	across FHDC area and this can be related to possible housing distribution – detailed evidence on this matter was presented to the recent Hatchfield Farm Inquiry.	
Pegasus Group on behalf of Newmarket Horsemen's Group 23259	<i>HRA Table 6.3</i> In relation to Newmarket see comments on para 4.49 and the detailed evidence submitted to the Hatchfield Farm Inquiry.	See response to 'HRA Para 4.49' above.
Pegasus Group on behalf of Newmarket Horsemen's Group 23259	<i>HRA Table 6.4</i> In terms of Newmarket the NHG considers the appraisal to be incorrect (see considerations for Chippenham Fen). There is a failure to consider water supply.	See response to 'HRA Para 4.90' above.
Pegasus Group on behalf of Newmarket Horsemen's Group 23259	<i>HRA Para 6.10</i> This should be a much fuller assessment identifying sites and possible effects.	The approach to consideration of in combination effects was revised after Issues and Options stage.
Pegasus Group on behalf of Newmarket Horsemen's Group 23259	<i>HRA Table 7.1</i> Disturbance to Annex 1 birds - the zone of 7.5 km has not been justified and varies from that of Fearnley. Urban Effects - Not all potential sites are named. Water supply - It would be possible to identify sites. The recommendations are inadequate given the data base available and, given that some sites already show signs of adverse impacts from water abstraction.	Disturbance to Annex 1 birds - see response to 'HRA Para 4.49' above. Urban effects – categorisation of types of effect and identification of European sites that are sensitive to each of these was revised after the HRA at Issues and Options stage. Water supply - see response to 'HRA Para 4.90' above.
Pegasus Group on behalf of Newmarket Horsemen's Group 23259	<i>HRA Table 7.1</i> All options Newmarket should be added to potential LSE sites for disturbance together with all other sites in 10 km. No consideration is given to water supply No consideration is given to flood risk	10 km disturbance zone of influence - see response to 'HRA Para 4.49' above. Water supply and flood risk - See response to 'HRA Para 4.90' above.

Consultation on the 'Preferred Options' SIR

Respondent	Section of Preferred Options HRA report	Comment summary	LUC response
Natural England (statutory consultee)			
Natural England (Cheshire) (Ms Francesca Shapland) 24206	General point	Natural England is broadly satisfied that the assessment have been prepared in accordance with the requirements of the Conservation (of Habitats and Species) Regulations (2010). You will be aware that Natural England provided comments at the Issues and Options stage in our letter dated 2015. Following these comments we note that much of our previous advice, particularly in relation to providing clarity in the documents, has been taken into consideration in the updated HRA. We find the report clearer, particularly in terms of the various components of urban and recreational effects. However we recommend some changes to Section 4, the information used and assumptions made in the HRA.	Noted. Specific concerns addressed below.
Natural England (Cheshire) (Ms Francesca Shapland) 24206	Section 4: Information used and assumptions made in the HRA	Before progressing with your appropriate assessment, we recommend that your authority reviews the criteria by which development sites have been screened in or out.	Specific concerns addressed below.
Natural England (Cheshire) (Ms Francesca Shapland) 24206	4.36-4.61 Recreation Pressure	As explained in our response to the Issue and Options consultation, we agree that it is necessary to consider cumulative recreational effects to the qualifying species of Breckland Special Protection Area (SPA) up to a distance of 7.5km. This distance was agreed during the Breckland Local Plan process as this is the distance within which it has been established that the majority of recreational effects can be captured. However these discussions focussed around the woodland and heathland areas of the SPA rather than the farmland areas as it was felt that visitors were likely to travel some distance to forest/heathland areas, but would only use farmland (for walking dogs etc.) near to home. With this in mind, the distance was largely put in place to protect nightjar and woodlark. Having considered the issue further, Natural England agrees that it should also be applied to stone curlew, as this species also uses heathland (but not forested) areas. However, given the above, this distance does not need to apply to farmland areas, so for example is not relevant to Breckland Farmland SSSI. We appreciate it may be difficult to separate the farming areas from the heathland/forested areas easily during the HRA screening process but it would be worth	Breckland SPA 7.5 km zone of influence used for screening for recreation pressure has been redrawn to exclude those parts of the SPA which are overlain by SSSI units which Natural England website (42) identifies as having a 'Arable and horticulture' habitat type.

Respondent	Section of Preferred Options HRA report	Comment summary	LUC response
		reviewing the site allocations again with that in mind.	
Natural England (Cheshire) (Ms Francesca Shapland) 24206	4.36-4.61 Recreation Pressure	<p>Furthermore the above discussions had no bearing on any agreed distances regarding cumulative recreational effects to Breckland Special Areas of Conservation (SAC). Although recreational effects to Breckland SAC need to be taken into account when reviewing applications at the planning stage, there is no evidence that the 7.5km distance needs to be applied to the Breckland SAC sites. This distance relates to effects on the qualifying species of Breckland SPA, being initially focused on Thetford Forest (in view of concerns regarding extensive development in Thetford). The site improvement plan for Breckland SAC mentions that recreation may cause an effect in future but we do not consider that it is currently affecting any specific interest features on site, hence why the site improvement plan does not list any SAC interest features currently under pressure. Taking this into account, we would expect site allocations affecting Breckland SAC would be reviewed very much on a case by case basis and appropriate mitigation applied but would not expect this distance to be applied. Should further evidence become available, we would be happy to review our position on this.</p> <p>Rex Graham Reserve is generally closed to the public and, as we understand it, the illegal plant collection is more a case of organised theft, i.e. it is not linked to recreation.</p> <p>Taking this into account, the above 7.5km distance to review cumulative recreational effects does not, in our view, need to apply to either Breckland SAC or Rex Graham SAC. We recommend you review the HRA screening of housing distribution options again with the above advice in mind.</p>	The method applied to HRA screening of the Proposed Submission and subsequent stages of the SALP has been amended to remove the assumption that likely significant recreation pressure effects cannot be ruled out for housing allocations within 7.5 km of Breckland SAC or Rex Graham Reserve SAC.
Natural England (Cheshire) (Ms Francesca Shapland) 24206	4.1 The FHDC Deliverability Study (Screening Criteria)	<p>Natural England is currently undertaking an internal review of the effectiveness of the screening criteria used to decide whether developments may pass the likely significant effect test in relation to the 1500m constraints zone. Note that this does not specifically apply to Forest Heath's criteria but relates to the screening criteria of all the relevant councils.</p> <p>We note that the Site Allocations Plan HRA includes reference to screening criteria used by the Core Strategy which includes a) totally screened from the European site by built development, and b) would not advance the line of built development towards the European site (4.1). We note that these mitigation options address impacts to stone curlew</p>	<p>The method applied by the HRA screening of the SALP (see separate report) does not rely on the screening criteria applied by FHDC in its Deliverability Study.</p> <p>LUC agrees that criteria (a) and (b) cited in Natural England's comment cannot address all aspects of the type of potential effect categorised by the HRA as 'Disturbance and other urban edge effects from construction or occupation of buildings' and this has</p>

Respondent	Section of Preferred Options HRA report	Comment summary	LUC response
		associated with the visual impact of increasing development (screening) and in terms of a gradual loss of area within the zone; however they cannot mitigate against indirect impacts, particularly those associated with housing (disturbance by human activity). Therefore whilst we do not have particular concerns about any of the site allocations set out in the current site allocations document, having worked with your authority on any we felt may affect the qualifying species of Breckland SPA, we suggest that in future the suitability of these criteria are reviewed against the types of development proposed for each allocation, to ensure they are appropriate and that the Habitats Regulations Assessment is robust.	been reflected in the approach to Appropriate Assessment of site allocations for which the HRA screening of the SALP cannot rule out likely significant effects.
Natural England (Cheshire) (Ms Francesca Shapland) 24206	7. Conclusions and Recommendations	Natural England is currently working towards a strategic land use planning solution for the Breckland Special Protection Area (SPA), which will seek to progress sustainable development solutions for stone curlew. We anticipate that, whilst a general principle of the avoidance of built development within the 1,500m constraint zone will remain (consistent with best practise), and should remain the preferred approach to the allocation of sites for development, a strategic solution will be devised which would identify options for mitigation which have so far not been available to developers. Some limited development within the 1,500m constraint zone may therefore be possible in the future, subject to a set of clearly defined criteria, and commitment to a mitigation strategy proportionate to the type, scale, and location of development. We will be writing to all the relevant authorities in due course about our proposal. Whilst it is not yet available and so cannot be included in your section on current or recommended mitigation for Breckland SPA, we hope that it can be mentioned within the Forest Heath local plan and at least briefly considered within the appropriate assessment (depending on timing).	Noted. Information on this solution was not available at the time of the HRA.
Natural England (Cheshire) (Ms Francesca Shapland) 24206	7.21	We welcome the Accessible Natural Greenspace study, which we have commented on separately, and are happy to work with the former Forest Heath District Council on the proposed recreational pressure mitigation strategy.	Noted. The HRA has taken account of this strategy, as outlined in the Accessible Natural Greenspace Study and referenced in relevant Local Plan policies.
Natural England (Cheshire) (Ms Francesca)	4.22 The stone curlew nest attempts data	We understand that the stone curlew nest attempts information is not yet ready and agree that the data should be updated at the proposed submission stage.	The HRA at the Proposed Submission and subsequent stages of the SALP is based on updated stone curlew nesting attempts data supplied to FHDC

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Shapland) 24206			by Footprint Ecology in July 2016 (60).
Natural England (Cheshire) (Ms Francesca Shapland) 24206	General point	We note that your authority has not yet begun the Appropriate Assessment. As this is often a long process, we would encourage you to begin work as soon as possible.	Noted.
Non-statutory consultees			
Pegasus Planning for Newmarket Horsemen's Group 24544	General point	The NHG submitted detailed evidence to the Hatchfield Farm inquiry raising significant concerns regarding the Council's approach to the Habitats Regulations. These concerns were reiterated in the NHG's response to the 2015 consultation of this document. The NHG's consultant has reviewed this latest draft of the HRA and considers that the previous concerns raised have not been addressed and therefore remain.	See responses to individual points in preceding table.
Pegasus Planning for Newmarket Horsemen's Group 24545	4.1 The FHDC Deliverability Study (Screening Criteria)	As the constraint zones are being reconsidered, it means that the Policy CS2 is effectively out of date and therefore that the allocations and distribution options cannot be considered as properly determined. The presence of other significant barriers such as the A 14 has not been used to screen site options - this leads to some sites e.g. in Kentford being excluded on the basis of spurious grounds and can skew allocations.	The method applied by the HRA of the SIR and SALP does not rely on the screening criteria applied by FHDC in its Deliverability Study.
Pegasus Planning for Newmarket Horsemen's Group 24546	4.9 Disturbance and other urban edge effects	There is an omission of other effects including fragmentation, vandalism, connectivity in the assessment	<p>Vandalism is not identified by Site Improvement Plans as a particular current pressure or potential future threat facing any of the scoped-in European sites and would, in any case, be difficult to differentiate from the generic effects categories of 'disturbance and other urban edge effects' and 'recreation pressure'.</p> <p>The potential importance of habitat areas outside European site boundaries to their designated species populations is given due consideration under the effects category 'direct loss or physical damage due to construction'. More diffuse fragmentation/ loss of connectivity effects are not identified by Site Improvement Plans as a particular current pressure or potential future threat facing any of the scoped-in</p>

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			European sites and there is no evidence to suggest that the Local Plan poses a credible threat to site integrity in this regard.
Pegasus Planning for Newmarket Horsemen's Group 24547	4.15 Disturbance and other urban edge effects	Non-residential building may have a cumulative or in combination effect with residential construction and this should be considered.	The approach to HRA screening for disturbance and other urban edge effects considers all forms of built development not just residential development.
Pegasus Planning for Newmarket Horsemen's Group 24548	4.20 Disturbance and other urban edge effects – stone curlew nesting attempts	<p>This predates the reappraisal of stone curlew records and will need reconsideration.</p> <p>A 1km grid square is unnecessarily onerous and may include land that is suitable thus skewing the allocation of sites, consideration of options.</p>	<p>The HRA screening of the Preferred Options Local Plan document used the most up-to-date stone curlew nesting attempts data available at the time. An updated data set is used for HRA of the Proposed Submission and Adoption stages of the Local Plan document.</p> <p>The screening uses the most appropriate stone curlew nesting attempts data available and this is reported using 1 km grid squares (60). The approach has been agreed with Natural England.</p>
Pegasus Planning for Newmarket Horsemen's Group 24549	4.37 Recreation pressure – European sites potentially affected	<p>The distance of 7.5km from the area boundary is not appropriate because of the potential for in combination effects.</p> <p>Two sites are vulnerable to recreational pressure:</p> <ul style="list-style-type: none"> Chippenham Fen has a public footpath with easy access to other parts of the site and is vulnerable to pressure. Natural England reports vandalism (evidence to Hatchfield Farm Inquiry (HFI)). Devil's Dyke has a public footpath along the top of a vulnerable structure which already shows signs of erosion. <p>Rex Graham reserve - theft is not a result of recreational pressure but specific criminal activity. It is considered that this needs a separate section.</p>	<p>Disagree. The justification for use of a 7.5 km zone of influence set out in the HRA report stands and has been agreed with Natural England.</p> <p>The site is generally closed to the public and the plant collection is organised theft rather than linked to recreation. In addition, the related SSSI is in 100% favourable condition. Natural England has confirmed that an assumption of cumulative recreation pressure from all housing allocations within 7.5 km of Rex Graham Reserve SAC is not necessary.</p>
Pegasus Planning for Newmarket Horsemen's Group	4.47-4.50 7.5 km recreation zone of influence	The NHG's previous comments about the applicability of the 7.5km v 10km buffer have been ignored. It does not matter where Fearnley measured to, the precautionary principle established by the Sweetman case indicates that in the light of very clear advice the 10km boundary should be adhered to. The report says that the majority of visitors live within 10km	Disagree. The justification for use of a 7.5 km zone of influence set out in the HRA report stands and has been agreed with Natural England.

Respondent	Section of Preferred Options HRA report	Comment summary	LUC response
24550		but there is in fact a case for a greater than 10km radius as the average distance from home to survey location in the Fearnley report was 16.7km. Further, no efforts were made to assess travel time and from some major towns journey time to core SPA areas is very quick along major roads.	
Pegasus Planning for Newmarket Horsemen's Group 24552	4.48	Object for the reasons set out in relation to 4.48.	Specific points addressed above.
Pegasus Planning for Newmarket Horsemen's Group 24553	4.64-4.93 Water quantity and water quality	<p>The NHG's consultant has reviewed the Water Cycle Study that has been prepared alongside the HRA and has the following concerns:</p> <ul style="list-style-type: none"> * The WCS appears to have been prepared and reviewed without awareness of any of the detailed water resource and groundwater issues reviewed in the HFI. * This report does not reflect the totality of the Anglian Water's Water Resources Management Plan (WRMP) and reviews Newmarket, Ely and West Suffolk RZ plans in isolation. * There is no quantitative comparison of housing projections used by the WRMP and FHDC. * The review of water-dependent protected species is inadequate * There is no reference to the Review of Consents for Chippenham Fen (Atkins Report, 2010) which was extensively reviewed in the HFI. There is also no reference to the impact of the Ely RZ abstraction at Isleham on Newmarket RZ, on which much time was spent at HFI. <p>The NHG considers that these concerns undermine the credibility of the HRA work that has been undertaken.</p>	FHDC has updated its Water Cycle Strategy since the HRA of the Preferred Options SIR; part of the brief for the updated report was to identify any water environment effects on European sites as a result of the growth proposed by the SIR and SALP and it is judged reasonable to rely upon this source of evidence for HRA of the SIR and SALP.
Pegasus Planning for Newmarket Horsemen's Group 24554	4.64 Water quantity	No information is given about the regarding individual sites or their vulnerability. The NHG considers that this section is noticeably light given the magnitude of the issue.	See response to [O - 24553 - 11392].

Respondent	Section of Preferred Options HRA report	Comment summary	LUC response
Pegasus Planning for Newmarket Horsemen's Group 24555	4.65 Water quantity	The NHG considers this to be incorrect. The potentially affected sites may depend on the additional water resource schemes but may also depend on the impact of even small levels of additional abstraction on already challenged sites.	See response to [O - 24553 - 11392].
Pegasus Planning for Newmarket Horsemen's Group 24556	4.68 Water quantity	Irrespective of what the Water Cycle Study found, there are sites listed in Appendix 2, including the Fenland SAC and Chippenham Fen Ramsar, which are known to be suffering negative effects and no consideration has been given to this. The licensing system is known not to be protecting European sites, viz the Review of Consents for Chippenham Fen	See response to [O - 24553 - 11392].
Pegasus Planning for Newmarket Horsemen's Group 24557	4.71 Water quantity	Mott MacDonald report undertook an HRA screening on the effects of options not on the underlying abstraction. It cannot therefore be used to say that there is no likely significant effects from the impacts of development.	The HRA of the Preferred Options SIR stated at paras. 7.23-7.27 that likely significant effects could not be ruled out in relation to water quantity. This issue is revisited in the HRA at the Proposed Submission and subsequent stages of Local Plan preparation, informed by an updated Water Cycle Strategy.
Pegasus Planning for Newmarket Horsemen's Group 24558	4.72 Water quantity	The NHG considers this to be incorrect. There are a series of Water Resource Zones and each will behave differently. Thus there may be site specific and local allocation issues and potential effects should be considered on the detailed scale of the housing growth as well as on the broader distribution. The Water Cycle study which is now available does not address this.	See response to [O - 24553 - 11392].
Pegasus Planning for Newmarket Horsemen's Group 24559	4.73 Water quantity	Detailed information was presented to the HFI that compared the residential growth to the Water Resource Management Plan (WRMP) and identified the relevant allocations for each Water Resource Zone.	See response to [O - 24553 - 11392].
Pegasus Planning for Newmarket Horsemen's Group 24560	4.73 Water quantity	NHG considers that the recent Water Cycle Study has not adequately addressed water resources. The HFI considered the 2015 WRMP at length and highlighted discrepancies in numbers and projections. It is in the Water Cycle that the Newmarket RZ will be in surplus (4.1.1). However, the AW report actually says in one place 'confirms that there is a greater than 90% probability that the RZ water balance will be in deficit from the mid-part of the forecast period' Thus much more detailed consideration needs to be given to these issues	See response to [O - 24553 - 11392].

Respondent	Section of Preferred Options HRA report	Comment summary	LUC response
		and the current assessments made as part of the Water Cycle update cannot be relied upon. These therefore cannot be taken forward to the HRA without considerable further work.	
Pegasus Planning for Newmarket Horsemen's Group 24562	Section 6. HRA screening of housing distribution options re. water quantity	The NHG considers that this needs to take account of the different Water Resource Zones. Furthermore, the screening does not consider in combination effects and as such is inadequate.	See response to [O - 24553 - 11392].
Pegasus Planning for Newmarket Horsemen's Group 24563	Page 35. HRA screening of housing distribution options re. disturbance and other urban edge effects	<p>The NHG has the following concerns :</p> <ul style="list-style-type: none"> * The stone curlew nesting data is being reanalysed and thus CS2 this cannot be verified as a constraint. * Newmarket: Given earlier comments on the 10 km radius this should not be ruled out. The issue of the nearest constraint zone is not relevant, it is the boundary of the SPA. * No in combination effect has been considered. * Kentford is the opposite side of the A 14 and as such is not functionally linked to the Breckland SPA . It should be omitted from the constraint zone and the allocation of housing reconsidered. 	<p>The HRAs of the Proposed Submission and subsequent stages of the SIR and SALP reference the updated (2011-2015) stone curlew nesting attempts information.</p> <p>Disagree. The justification for use of a 7.5 km zone of influence set out in the HRA report stands and has been agreed with Natural England.</p> <p>The assessment method considers the potential disturbance and other urban edge effects of the total scale of growth proposed at each settlement and these effects are assumed to not operate over distances greater than 1.5 km. It is unclear which potential in combination effects have been omitted by this approach.</p> <p>The evidence relied upon by the HRA concerning which stone curlew nesting attempts areas are functionally linked to Breckland SPA has been accepted by Natural England and it judged reasonable to rely upon this.</p>
Pegasus Planning for Newmarket Horsemen's Group 24564	Page 38 - Recreation Pressure Table	<p>The 7.5 km boundary should be reconsidered and extended to 10 km. On this basis Newmarket would not be considered to have no likely significant effects.</p> <p>The Rex Graham reserve issue is criminal damage not recreational pressure and as such the boundary needs considering.</p>	See response to [O - 24549 - 11392].
Pegasus Planning for Newmarket Horsemen's Group	Page 43 - Water Pressure Table	<p>Overall this is inadequate and needs substantial revision including identification of sites.</p> <p>Column 2 : Evidence was presented at the HFI to compare the residential growth of FHDC with the other Districts . This could</p>	See response to [O - 24553 - 11392].

Respondent	Section of Preferred Options HRA report	Comment summary	LUC response
24565		<p>readily be updated.</p> <p>Column 3 : The existing abstraction regime has not ensured that there are no likely significant effects on European sites. This is documented in Reviews of Consents and in citation sheets.</p> <p>Column 6 : Consideration has been given to the Water Cycle Report (4.74) and it will not be possible to rule out likely significant effects based on information within that document. It also ignores the existing adverse effects.</p>	
Pegasus Planning for Newmarket Horsemen's Group 24566	7.5 In combination effects	Given that likely significant effects could not be excluded with certainty, as is required under the legislation, for recreation and water quantity, there is a need to properly consider the potential in combination effects for every relevant European designated site. Comments made previously indicate that the plan has not necessarily mitigated additional pressure and the supporting tables in section 6 need reconsideration	Para. 7.5 does not state that likely significant effects could not be excluded with certainty, rather that no relevant residual effects from other plans and projects were identified by the in combination assessment.
Pegasus Planning for Newmarket Horsemen's Group 24568	7.17-7.18 Recreation pressure	As previously discussed the NHG considers that there are good reasons for the buffer zone to be 10 km. That described is not an appropriate reason for the establishment of a buffer zone. The NHG considers that if development is to be allocated an Appropriate Assessment needs to be undertaken to establish no likely significant effects. On this basis Newmarket cannot be ruled out.	See response to [O - 24549 - 11392].
Pegasus Planning for Newmarket Horsemen's Group 24569	7.20 Recreation pressure	The NHG considers that it is not sufficient to 'reduce the potential' and depend on an Accessible Greenspaces Policy. If greenspace is to be compensation and/ or mitigation, then it needs to be 'at least equally if not more attractive'. It is by no means certain that this can be achieved and there is an absence of evidence to prove otherwise.	Natural England commented on FHDC's Natural Accessible Greenspace Study at Preferred Options stage that " <i>it has not been proved that strategic recreational effects are having an effect on the qualifying species of Breckland SPA</i> " but recognising the potential for development in the area to give rise to such effects and stating that " <i>we welcome the approach set out in the report to address this potential issue</i> ". Where Natural England has made suggestions to strengthen the mitigation offered by the study, FHDC has given consideration to these and reflected them in latest (January 2017) version of the study, for example by adding. As such, it is judged appropriate for the HRA to rely on the approach to mitigation set out in the study and referenced in the Local Plan documents.

Respondent	Section of Preferred Options HRA report	Comment summary	LUC response
Pegasus Planning for Newmarket Horsemen's Group 24570	7.23 Water quantity	No detailed information is given on the sites that would be potentially affected.	See response to [O - 24553 - 11392].
Pegasus Planning for Newmarket Horsemen's Group 24571	7.24 Water quantity	The NHG considers that information is available to assist with this.	See response to [O - 24553 - 11392].
Pegasus Planning for Newmarket Horsemen's Group 24572	7.25 Water quantity	The NHG considers that it is incorrect to suggest that the sites potentially affected would depend on particular schemes when there is already documented evidence of damage.	See response to [O - 24553 - 11392].
Pegasus Planning for Newmarket Horsemen's Group 24573	7.24/7.27 Water quantity	The Water Cycle Study is now available and does not provide confirmation that likely significant effects can be ruled out.	See response to [O - 24553 - 11392].
Pegasus Planning for Newmarket Horsemen's Group 24574	Appendix 3 Response to consultation comments on HRA of Issues and Options	<p>The NHG objects to the response, which points to the WCS dealing with impacts of abstraction effects. The WCS does not deal with in- combination effects of abstractions other than in a superficial manner. It is noted that these issues are to be dealt with at Proposed Submission.</p> <p>Furthermore, review of water-dependent protected sites only assesses those with European protective designation. There is an inadequate reference to ground water related issues.</p>	See response to [O - 24553 - 11392].
Sellwood Planning for Lord Derby 24081	Section 4. Water quantity and water quality	<p>Paragraph 4.70 The March 2016 Water Cycle Strategy Update concludes that that Forest Heath preferred sites can be supplied with water without increased abstraction and there is therefore no negative impact from the development plans in terms of water supply. Even if it had been considered that additional water resources had been required, there are a series of technical and regulatory measures which interlock to ensure there could be no risk to European sites.</p> <p>Therefore there will be no likely significant effects on</p>	Support noted.

Respondent	Section of Preferred Options HRA report	Comment summary	LUC response
		<p>internationally important sites in terms of water supply which is in accordance with the Conservation of Habitats and Species Regulations.</p> <p>Paragraph 4.87 The updated Water Cycle Strategy, referenced by LUC, confirms no that there are no technically insurmountable issues associated with treatment of wastewater from the Preferred Option and hence likely significant effects can be ruled out in terms of water quality.</p> <p>Paragraph 4.69 Whilst no air quality issue has been raised in terms of Hatchfield Farm, the allocation would not be likely to result in air quality concerns in relation to European designated sites.</p>	
Breckland District Council (Martin Pendlebury) 24098	SPA and designated features terminology	We note some inconsistency in the drafting of the documents in terms of the Special Protection Area and referencing all the features from which it derives the designation. We would recommend making this consistent especially in terms of Habitats Regulation Assessment.	Unclear which particular references to the SPA and designated features are inconsistent in the HRA for the Preferred Options SIR but the HRA at subsequent stages of plan preparation has sought to be consistent.
Eclipse Planning Services for Animal Health Trust 24186	General comment	<p>The SIR Habitats Regulations Assessment has also been examined. The presence in Forest Heath District itself and within 20km of the area boundary of Special Protection Areas and Special Areas of Conservation is acknowledged. To paraphrase paragraph 7.18 from the document's concluding section, there is potential for significant effects on these areas from development at all the area's major settlements except Newmarket, and at the primary villages, for both Options 1 and 2. The only alternative would be to redirect a significant proportion of the development proposed elsewhere in the area to Newmarket, a strategy which AHT did not support at the previous consultation stage and which the Council has itself since rejected. There is no avoiding the fact that potential impacts must be evaluated and suitable methods of mitigation found.</p> <p>However, the corollary is that to increase housing provision to what we regard as an appropriate level need not increase to any great extent the potential for adverse effects on these areas, the Breckland SPA in particular.</p> <p>The land at Kentford in AHT's ownership which we recommend for allocation lies outside the buffer zones for areas used for nesting by stone curlew. It is thus free from this constraint.</p>	<p>Paragraph 7.18 states the finding of the initial screening assessment, prior to consideration of existing mitigation. The overall conclusion is in the boxed text after para. 7.20. The potential effects of recreation pressure have been revisited in the HRA at Proposed Submission and subsequent stages, including in light of FHDC's recreation mitigation strategy.</p> <p>Other points noted.</p>

Respondent	Section of Preferred Options HRA report	Comment summary	LUC response
		<p>More generally, we see that the HRA also contains a review of the plans and programmes of nearby local planning authorities containing or within a certain radius of SPAs and SACs. We note the extent of housing provision in Breckland District, where the scale of proposed housing development (19,500 dwellings for the period 2001 to 2026) and the proximity of the area's principal town, Thetford, to the SPA/SAC has the potential to give rise to greater impacts than from development in Forest Heath District. These potential impacts appear to have been dealt with satisfactorily. We conclude therefore that the presence within the area and in surrounding areas of Special Protection Areas and Special Areas of Conservation does not act as an overriding constraint to the provision of an additional 700 dwellings (10.3%) over the proposed 6,800 dwellings for the Plan period.</p> <p>In the light of the above, we advocate total housing provision in Forest Heath District for the Plan period 2011 to 2031 of 7,500 dwellings, based on the relationship between affordable housing need and total housing provision which informed our representations at the previous stage.</p>	
Eclipse Planning Services for Crest Nicholson (Eastern) 24444	General comment	<p>The SIR Habitats Regulations Assessment has also been examined. The presence in Forest Heath District itself and within 20km of the area boundary of Special Protection Areas and Special Areas of Conservation is acknowledged. To paraphrase paragraph 7.18 from the document's concluding section, there is potential for significant effects on these areas from development at all the area's major settlements except Newmarket, and at the primary villages, for both Options 1 and 2. The only alternative would be to redirect a significant proportion of the development proposed elsewhere in the area to Newmarket, a strategy which Crest Nicholson did not support at the previous consultation stage and which the Council has itself since rejected. There is no avoiding the fact that potential impacts must be evaluated and suitable methods of mitigation found.</p> <p>However, the corollary is that to increase housing provision to what we regard as an appropriate level need not increase to any great extent the potential for adverse effects on these areas, the Breckland SPA in particular. An increased level of housing at Red Lodge could be accommodated in a compact and well planned fashion (desirable characteristics even in the absence of nature conservation constraints) so that the</p>	Noted.

Respondent	Section of Preferred Options HRA report	Comment summary	LUC response
		<p>impacts in terms of two of the HRA's concerns - the dwellings themselves and the necessary infrastructure to support them, including roads - could be absorbed and mitigated.</p> <p>It might reasonably be assumed that any increase in recreational pressures would be commensurate with any increase in population; but then again paragraph 7.19 of the HRA refers to the potential to mitigate adverse effects in adopted policies, starting with Policy CS2.</p> <p>The HRA also contains a review of the plans and programmes of nearby local planning authorities containing or within a certain radius of SPAs and SACs. We note the extent of housing provision in Breckland District, where the scale of proposed housing development (19,500 dwellings for the period 2001 to 2026) and the proximity of the area's principal town, Thetford, to the SPA/SAC has the potential to give rise to greater impacts than from development in Forest Heath District. These potential impacts appear to have been dealt with satisfactorily.</p> <p>We conclude therefore that the presence within the area and in surrounding areas of Special Protection Areas and Special Areas of Conservation does not act as an overriding constraint to the provision of an additional 700 dwellings (10.3%) over the proposed 6,800 dwellings for the Plan period.</p>	
Newmarket Horsemen's Group (NHG)	4.47 Recreation pressure – Rex Graham Reserve SAC	This is not recreation pressure.	See response to [O - 24549 - 11392]
Pegasus Planning for Newmarket Horsemen's Group 24567	7.9-7.12 Mitigation of disturbance and other urban edge effects by CS2	Depending on the results of the review of stone curlew data CS2 may need to be amended.	Natural England has endorsed use of the most recent nesting attempts data (2011-2015) for the HRA of the SIR and SALP. A literal interpretation of Core Strategy Policy CS2 would require reference to all nesting attempts data 'since 1995'. Since this is a more precautionary approach it does not affect the ability of the HRA of the SIR and SALP to rely on assurance provided by CS2 that unallocated development proposals that could have an adverse effect on the integrity of Breckland SPA will be subject to project level HRA.

Consultation on the 'Proposed Submission' SIR

Respondent [comment reference]	Section of Proposed Submission HRA report	Comment summary	LUC response
Natural England (statutory consultee)			
24885 - Natural England (Cheshire) (Ms Francesca Shapland) [12637]	General point	Habitats Regulations Assessment Natural England agrees with the approach taken and conclusions drawn within this HRA. We consider that the background information, approach to screening and information within the Appropriate Assessment have all been explained clearly. We have provided our view on the various sections of the HRA below.	Noted.
24885 - Natural England (Cheshire) (Ms Francesca Shapland) [12637]	Air quality	We have reviewed the Forest Heath Local Plan Air Quality Assessment Regarding Breckland Special Area of Conservation and Breckland Special Protection Area and agree with the conclusions regarding potential pollution levels at specific road networks close to these sites. We consider that the information provided is sufficient to rule out effects to the integrity of Breckland SPA and Breckland SAC at this stage.	Noted.
24885 - Natural England (Cheshire) (Ms Francesca Shapland) [12637]	Effects in relation to the 1.5km Breckland SPA constraints zone	We agree that effects in relation to stone curlew within the 1.5km Breckland SPA constraints zone are better addressed within the HRA for the site allocations, as effects due to allocations within this buffer can often only be ruled out during discussions with Natural England , a project level HRA and mitigation. It would not be possible to entirely rule out effects of increased housing within this zone at the strategic level.	Noted.
24885 - Natural England (Cheshire) (Ms Francesca Shapland) [12637]	Disturbance from construction or operation of roads	Natural England would welcome any options that would avoid direct effects to Breckland SPA but if this is not possible, as stated, we would expect the selected option to be subject to a Habitats Regulations Assessment and sufficient mitigation to be provided to address any effects to the qualifying species of Breckland SPA. Providing this approach is taken we agree that this can be screened out from further assessment.	Disturbance from construction or operation of roads - The Appropriate Assessment has shown that where the potential for adverse effects on integrity of Breckland SPA exists, technical options are available that could deliver the necessary highway improvements without direct effects on the Breckland SPA. It is therefore appropriate for the HRA of the SIR to rely on the fact that the chosen option would be subject to project level HRA.
24885 - Natural England (Cheshire) (Ms Francesca Shapland) [12637]	Water Quality and Quantity	We agree with the information provided and the conclusions regarding water quality.	Noted.

Respondent [comment reference]	Section of Proposed Submission HRA report	Comment summary	LUC response
Shapland) [12637]			
Non-statutory consultees			
24937 – RPS for Elveden Farms Ltd.	Para 6.7 -6.17	Paragraphs 6.7 - 6.17 fail to include the various methods which can be used in order to mitigate the impacts of development proposals on the Breckland SPA. These paragraphs refer to one method only in which we consider to be unacceptable. This point is reiterated by Policy CS2 which states, 'proposals for development in these areas will require a project level Habitat Regulations Assessment'. This policy remains appropriate and therefore should be included and described within these paragraphs. For example, Elveden Farms Ltd has submitted a planning application for a housing development at Little Eriswell and through discussions with Natural England it has been determined that there would be no likely significant impact on the Breckland SPA. This information is based on the careful analysis of precise stone curlew nest locations that took place throughout the application process and the most appropriate suitable mitigation measures. Therefore it is considered that these paragraphs make the HRA unsound if policy CS2 is not applied;	Paragraphs 6.7-6.17 set out an initial screening prior to consideration of mitigation; the mitigation offered by Policy CS2 is considered in paragraph 6.21. Likely significant effects from the SIR's broad distribution of housing are ruled out. More detailed consideration of the potential effects of individual allocations is provided in the HRA of the SALP.
24937 – RPS for Elveden Farms Ltd.	Para 6.21	Paragraph 6.21 states that policy CS2 is unavailable for use in this assessment of broad distribution. This statement is incorrect as policy CS2 has provided this safeguard within the adopted Core Strategy which was found sound prior to adoption. CS2 provides the opportunity for development within certain locations subject to a HRA. The policy does not pre-empt the findings of project level HRA, as stated, because it leaves open a range of outcomes of the project level HRA, and would only permit favourable outcomes to result in planning permission. There have been no policy changes to suggest that policy CS2, which was acceptable as adopted within the Core Strategy, is no longer acceptable.	It was judged inappropriate to rely solely on the generic protection offered by the Policy CS2 requirement to carry out project level HRA when more detailed assessment of the potential effects of the SIR broad distribution of housing was available from the parallel HRA of the SALP allocations that implement this broad distribution. Likely significant effects from the SIR's broad distribution of housing were ruled out by reference to this more detailed assessment.
24937 – RPS for Elveden Farms Ltd.	Para 6.25	With reference to paragraph 6.25, it is generally not acceptable for HRA of a plan to delegate its conclusion to the results of lower tier plan, especially where that other	It is a matter of fact that the HRA of the Proposed Submission SALP was carried out and consulted on in parallel to that of the SIR and was available to inform it.

Respondent [comment reference]	Section of Proposed Submission HRA report	Comment summary	LUC response
		plan has not been adopted. In this case, the author suggests that the HRA of the Site Allocations Local Plan document is necessary to determine the HRA conclusion of the Core Strategy Review. If that suggestion was true, the adopted core strategy could not have been adopted.	That parallel HRA work demonstrates that it is feasible to implement the broad distribution of housing within the SIR without likely significant effects in relation to disturbance and other urban edge effects. It is therefore appropriate for the HRA of the SIR to refer to the findings of the HRA of the SALP.
24937 – RPS for Elveden Farms Ltd.	Para 6.30-6.36	With reference to paragraphs 6.30 - 6.36 we consider it to be unacceptable for HRA of a plan to delegate its conclusion to the results of a lower tier plan, especially where that other plan has not been adopted. In this case, the author suggests that the HRA of the Site Allocations Local Plan document is necessary to determine the HRA conclusion of the Core Strategy Review. If that suggestion was true, the adopted Core Strategy could not have been adopted. It is clear that with the safeguard of policy CS2 it is perfectly possible to conclude no likely significant effect on European Sites from the Single Issue Review broad distribution of housing. Furthermore, the analysis should not be of distances from the SPA boundary, but from access points to the SPA which has not been considered.	The first point is addressed in the response to the comments on paragraph 6.25 above. In relation to the appropriate screening distance, this is justified at paragraphs 4.54-4.55 of the HRA report and has been agreed with Natural England.
24938 - RSPB - Eastern England (Mr Mike Jones)	General point	We would not normally consider it acceptable for a plan to defer to a lower tier document's requirement for HRA in order to demonstrate that it would result in No Likely Significant Effect on European Sites. However, as the consultations for both the SIR and SALP are running in parallel, it is possible to see from the evidence provided in both that the proposed allocations are able to comply with Core Strategy policy CS2 and therefore deliverable, so we have no outstanding concerns on this point.	Noted. This approach was judged acceptable because both Local Plan documents and both HRAs are prepared and consulted upon in parallel. The HRA has therefore been informed by the best information available to it.

Consultation on the HRA of the 'Proposed Main Modifications' SIR

Respondent	Section of Main Mods HRA report	Comment summary	LUC response
24961 - Lakenheath Parish Council (Clerk to the Parish Council)	Not a comment on the HRA	Mitigation proposed at junction 25 - B1112 is insufficient. Temporary traffic lights are currently installed at this junction and tailbacks are seen as far as Holywell Row. This is before any intensification at RAF Lakenheath. This has a knock on effect to other roads in the area, with motorists trying to avoid this junction and causes disturbance and pollution to residents at the junction.	This is a comment about traffic rather than a HRA issue. The HRA does not propose any road improvements but assesses the potential for effects arising as a consequence of those proposed.
24971 – KWA for Hills Residential Ltd	General point	It is unjustified and unlawful to allocate sites which have not been subject to appropriate HRA considerations, when site RL/07 has already been proven not to harm the SPA or wider designations if allocated for up to 100 dwellings	All allocated sites including those in policy SA09 and SA10 have been subject to a Habitats Regulations Assessment. An Addendum to the SIR and SALP HRA's (June 2018) has reviewed the implications of the CJEU ruling People Over Wind and Sweetman v Coillte Teoranta (C-323/17) and completed any further assessment required as a result of this. For avoidance of doubt that the requirements of People Over Wind have been complied with, the HRA has subsequently been rewritten in full (March 2019 version of the HRA).
24996 – Sellwood Planning for The Earl of Derby	General point	Whilst Lord Derby strongly supports the overall conclusions of the HRAs for both the SIR and SALP and the evidential support it gives for the reallocation of Hatchfield Farm, it is considered that it should draw a conclusion on the relative HRA outcomes between the submission SIR / SALP and the proposed modified plans. It is considered that the reduction in the number of dwellings proposed at Red Lodge and Lakenheath (both of which are significantly constrained by SAC / SPA concerns) and the increase in housing at Newmarket (which is not constrained by SAC / SPA issues) is an overall benefit.	The HRA is of the modified plan and not a comparison of the modified plan with any earlier iteration.
24951 - Natural England (Cheshire) (Ms Francesca Shapland)	General point	We note that the two corresponding HRAs will need to be updated to take into account the recent ruling CJEU (case 323/17) People over Wind v Coillte Teoranta. We understand that FHDC are intending to carry out a review of the HRAs for both the SIR and the SALP and will forward this to Natural England for comment.	An Addendum to the SIR and SALP HRA's (June 2018) has reviewed the implications of the CJEU ruling People Over Wind and Sweetman v Coillte Teoranta (C-323/17) and completed any further assessment required as a result of this. For avoidance of doubt that the requirements of People Over Wind have been complied with, the HRA has subsequently been rewritten in full (March 2019 version of the HRA).

Consultation on a revised HRA for the SIR that address issues of legal compliance and soundness, as a consequence of recent rulings from CJEU (May-June 2019)

Respondent	Section of April 2019 HRA report	Comment summary	LUC response
Environment Agency	Chapter 5 Appropriate Assessment in relation to water quantity	Contextual information should mention that the EA can also address any unsustainable abstraction for public water supply through the AMP (Asset Management Plan) programme and information on Restoring Sustainable Abstraction programme (RSA) should be updated.	Information amended in line with EA suggestions.
Environment Agency	Chapter 5 Appropriate Assessment in relation to water quality	We agree with the water quality conclusions ("Results" on pages 56 and 57) of the new HRA document.	Noted.
Natural England	General points	Natural England welcomes the proposed Main Modifications of the Habitat Regulations Assessment and is broadly satisfied that the assessment is legally compliant. We particularly welcome the clarification regarding recreational offsetting measures for Breckland Special Protection Area (SPA), including the commissioned SANG report. We consider the report has now been updated to reflect the recent European rulings and gives adequate consideration to in-combination effects with other plans or projects.	Noted.
Further legal opinion for Newmarket Horsemen's Group (NHG)	General points	The further Appropriate Assessment carried out in the light of the Further Modifications and the April 2019 HRAs for the SIR and SALP reaches a conclusion which is unlawful. Legal objections focus on the need for certainty of the effectiveness of mitigation measures in light of recent CJEU judgments. If the Council adopts the plans as part of its development plan in reliance on the latest modifications and HRAs then in my view that adoption would itself be unlawful.	In LUC's opinion as HRA consultants, the HRA meets the requirements of the Habitats Regulations.
Sellwood Planning	General points	The revised HRA is supported in its entirety. We are satisfied that the revised HRA appropriately and fully addresses current European Court Case Law judgements.	Noted.