APPENDIX E

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Habitats Regulations Assessment of the Forest Heath area Site Allocations Local Plan

Prepared by LUC
September 2019

Project Title: Habitats Regulations Assessment of the Forest Heath area Site Allocations Local Plan

Client: AECOM on behalf of the former Forest Heath District Council

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1 Introduction

1.1 LUC has been contracted by AECOM on behalf of the former Forest Heath District Council (FHDC or 'the Council') to carry out the Habitats Regulations Assessment (HRA) of the Single Issue Review (SIR) of Core Strategy Policy CS7 Overall Housing Provision and Distribution ('the SIR') and of the Site Allocations Local Plan ('the SALP'). This report documents the results of the HRA of the version of the SALP 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 identified by the Council during its Examination and further modifications made following recent rulings from the Court of Justice for the European Union (CJEU).

Background to the Forest Heath area SIR and SALP

1.2 The Site Allocations Local Plan (SALP) is part of the area's Development Plan, a suite of planning documents that will (once adopted) replace the Council's Local Plan (1995) saved policies, in accordance with the National Planning Policy Framework (NPPF).

1.3 The first document in the suite of planning documents that the Council produced was the Core Strategy. This is the strategic document which provides an overall vision and framework for the growth of the area, underpinned by the principle of sustainability. The Core Strategy was adopted in May 2010. A successful High Court challenge resulted in the majority of Policy CS7, along with elements of CS1, CS13 and para 3.12.2, being revoked. Policy CS7 is the policy that sets out the amount and distribution of housing that was planned for the area to 2031. Consequently, a Single Issue Review (SIR) of Core Strategy Policy CS7 has been prepared, and the Site Allocations Local Plan has developed alongside the SIR.

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 of Policy CS7 and the SALP will complete the Council's suite of Local Plan documents that will form the Development Plan for the area, and as such these documents must be read as a whole. In accordance with the NPPF, planning permission must be determined in accordance with the development plan, unless material considerations indicate otherwise.

1.6 Once the SIR and SALP are adopted, the 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

1.7 The requirement to undertake HRA of land use plans, including local development documents[1], 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 to 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.

1.8 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

1.9 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).

1.10 For ease of reference during HRA, these designations can be collectively referred to as European sites[5] despite Ramsar designations being at the international level.

Stages of HRA

1.11 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.

1.12 The HRA should be undertaken by the 'competent authority', in this case FHDC. 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 body[6] 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

1.13 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:

1.14 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.

1.15 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.]

1.16 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.]

1.17 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.

1.18 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

1.19 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.

1.20 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.

[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.

Recent case law changes

1.21 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.

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

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

1.23 In line with this judgment, the HRA screening stage for the Forest Heath area SALP 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.

1.24 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."

1.25 The HRA of the Forest Heath area SALP 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.

1.26 The *Edel Grace and Peter Sweetman v An Bord Pleanala* (July 2018) judgment, 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).

1.27 The precise wording of the ruling is as follows:

1.28 *"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…*

1.29 *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…"*

1.30 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

1.31 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 area 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 SALP. 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.

1.32 HRA reports were produced to accompany the August-October 2015 consultation on the 'Issues and Options' version of the SALP, 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.

1.33 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 SALP 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 *People over Wind* 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) : • Information used and assumptions made in the HRA (previously Chapter 4). • Results of initial screening (previously Chapter 5).	The information in these sections is now contained in the Appropriate Assessment (Chapter 5) to reflect a revised approach to screening in line with the *People over Wind* case.
'Conclusions of HRA Screening' chapter replaced with new Chapter 4, 'HRA screening'.	The approach to screening has been revised in line with the *People over Wind* case.
Appropriate Assessment of 'Recreation pressure', the approach to which was previously revised through the June 2018 Addendum to the HRAs, 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 *People over Wind* case.
Previous Appendix 1: Initial screening of site allocations removed.	This has been removed in line with the revised screening methodology. The information in this appendix has been incorporated into the Appropriate Assessment as relevant.
Added description of the non-qualifying habitats and species on which the qualifying features of European	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

Summary of change	Reason for change
sites depend to Appendix 2 (fifth column of table).	European sites, in line with the *Holohan* case.
Update of other relevant plans and projects in Appendix 1and 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 SALP that addressed issues of legal compliance and soundness, as a consequence of recent rulings from CJEU.

Structure of the HRA report

1.34 This chapter has introduced the background to the production of the Forest Heath area SALP and the requirement to undertake HRA. The remainder of the report is structured as follows:

- **Chapter 2 The Site Allocations Local Plan** summarises the content of the SALP 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 SALP (detailed information is provided in Appendix 2) and considers the other plans and projects with which the SALP could act in combination to have a significant effect on a European site (detailed in Appendix 1).
- **Chapter 4 HRA screening** considers whether the SALP is likely to have significant effects on any European site.
- **Chapter 5 Appropriate Assessment** considers whether any of the SALP policies 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 conclusions of the HRA of the SALP.

2 The Site Allocations Local Plan

2.1 The SALP document that is the subject of this HRA Report contains policies on the following:

- Revised settlement boundaries for housing growth in the area's three market towns, key service centres and primary villages (Policy SA1).
- Allocation of sites for new housing, mixed use development and a new cemetery in the market towns, key service centres and primary villages (Policies SA2-SA14).
- Allocation of a site for expansion of a primary school in the secondary village of Moulton (Policy SA15).
- Identification of existing employment areas and their protection for employment purposes (Policy SA16).
- Allocation of sites for new employment development (Policy SA17).
- Allocation of a site for new retail development (Policy SA18).
- Preparation of masterplans for the town centres of the market towns (Policy SA19).

2.2 The new development sites allocated by the SALP are listed in Table 2.1 in the order in which they appear in the plan document.

Table 2.1 Summary of site allocations by settlement

Site ID	Site address	Use
Housing and mixed use site allocations in the market towns (incl. allocation for new cemetery)		
BRANDON		
SA2(a)	Land at Warren Close	Housing
SA2(b)	Land off Gas House Drove	Housing
SA3	Brandon Cemetery	New cemetery site
MILDENHALL		
SA4(a)	Land west of Mildenhall	Housing, employment (B1, B2 and B8), schools, leisure facilities and public services
SA5(a)	Land at 54 Kingsway	Housing
SA5(b)	District Council Offices, College Heath Road	Housing
NEWMARKET		
SA6(a)	Brickfield Stud, Exning Road	Housing
SA6(b)	Land at Black Bear Lane and Rowley Drive junction	Housing, racehorse training yard and paddock
SA6(c)	Land at Phillips Close and grassland south-west of Leaders Way and Sefton Way	Housing
SA6(d)	Former St Felix Middle School site	Housing
SA6(e)	Land adjacent to Jim Joel Court	Housing
SA6(f)	Land at 146a High Street	Housing
SA6(g)	Land at Hatchfield Farm	Housing, employment (B1, B2 and B8), school
Housing and mixed use site allocations in the key service centres		
LAKENHEATH		
SA7(a)	Matthews Nursery	Housing and retail
SA7(b)	Land west of Eriswell Road	Housing
SA8(a)	Rabbit Hill Covert, Station Road	Housing
SA8(b)	Land north of Station Road	Housing and primary school
SA8(c)	Land off Briscoe Way	Housing
RED LODGE		
SA9(a)	Land off Turnpike Road and Coopers Yard	Housing
SA9(b)	Land east of Red Lodge (north)	Housing
SA9(c)	Land east of Red Lodge (south)	Housing

Site ID	Site address	Use
SA9(d)	Land west of Newmarket Road and north of Elms Road	Housing
SA10(a)	Land north of Acorn Way	Housing, employment (B1, B2 and B8), and primary school
Housing and mixed use site allocations in the primary villages		
BECK ROW		
SA11(a)	Land adjacent to St Johns Street	Housing
SA11(b)	Land adjacent to and south of the caravan park, Aspal Lane	Housing
SA11(c)	Land east of Aspal Lane	Housing
SA11(d)	Land adjacent to Beck Lodge Farm	Housing
EXNING		
SA12(a)	Land south of Burwell Road and west of Queens View	Housing
KENTFORD		
SA13(a)	Land to the rear of The Kentford	Housing
SA13(b)	Land at Meddler Stud	Housing and racehorse training establishment
WEST ROW		
SA14(a)	Land east of Beeches Road	Housing
Site for allocation in the secondary villages		
SA15	Moulton Primary School	Expansion of primary school
Employment allocations		
SA17(a)	Mildenhall Academy and Dome Leisure Centre site, Mildenhall	Employment (B1)
SA17(b)	St Leger, Newmarket	Employment (B2 and B8)
Retail allocation		
SA18(a)	Former Gas Works, Exning Road, Newmarket	Convenience food store (A1)

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 2017[8] (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 case[9], 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 Union[10] 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.

[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.

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, should 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 SALP.

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 Guidance[11] 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 The scope of the Appropriate Assessment has been narrowed down by identifying the specific aspects of the SALP that contribute to its potential for adverse effects on integrity. Each site allocation has been considered, alone and in combination with other site allocations, policies and/or plans from neighbouring authorities.

3.11 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 development of a site allocation would have an adverse effect on the integrity of a European site.

3.12 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.

3.13 The following colour scheme was used to record the likely impacts of each site allocation on European sites and their qualifying habitats and species.

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

3.14 The Appropriate Assessment then focuses on those policies and site allocations that have been scoped in.

Assessing the effects on site integrity

3.15 For each European site where an uncertain or likely significant effect has been identified in relation to the SALP, 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

[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.

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.

3.16 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.

3.17 A conclusion needs to be reached as to whether or not the SALP would adversely affect the integrity of a European site. As stated in the EC Guidance, assessing the effects on the site(s) 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.

3.18 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

3.19 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."

3.20 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.

3.21 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

3.22 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

3.23 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*".

3.24 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 SALP

3.25 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 SIR being developed in parallel with the SALP plus county and district level strategic plans which provide for development in the area and adjacent districts (including the policies of the adopted Forest Heath area Core Strategy that are not being reviewed by the SIR).

3.26 To identify other projects that could result in a significant combined effect with the SALP, 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 were 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 SALP. The plans and projects reviewed are set out in Appendix 1 with the exception of the emerging SIR, 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 SALP.

3.27 The review of other relevant projects proceeded as follows.

3.28 Where project level HRA screening had been unable to rule out likely significant effects, then the project could not proceed in its current form until Appropriate Assessment ruled out adverse effects on integrity. At that point, the Appropriate Assessment would need to consider the potential for the project to have effects in combination with other plans and projects, including the SIR and SALP.

3.29 Where a project had not yet advanced sufficiently through the planning process for project level HRA screening to have been carried out, there was 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 the project to have effects in combination with other plans and projects, including the SIR and SALP.

3.30 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).

3.31 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 SALP 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 SALP has determined that Appropriate Assessment is required, as likely significant effects from the plan's policies and site allocations 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 SALP 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 SALP will result in new development (e.g. housing, employment and infrastructure), 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 SALP.

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 that 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 overlies 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 (assessed in the HRA of the SIR for the reasons set out in the

following chapter) 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 SALP therefore considers 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 SALP

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 SALP, the following types of potential effect on European sites were identified:

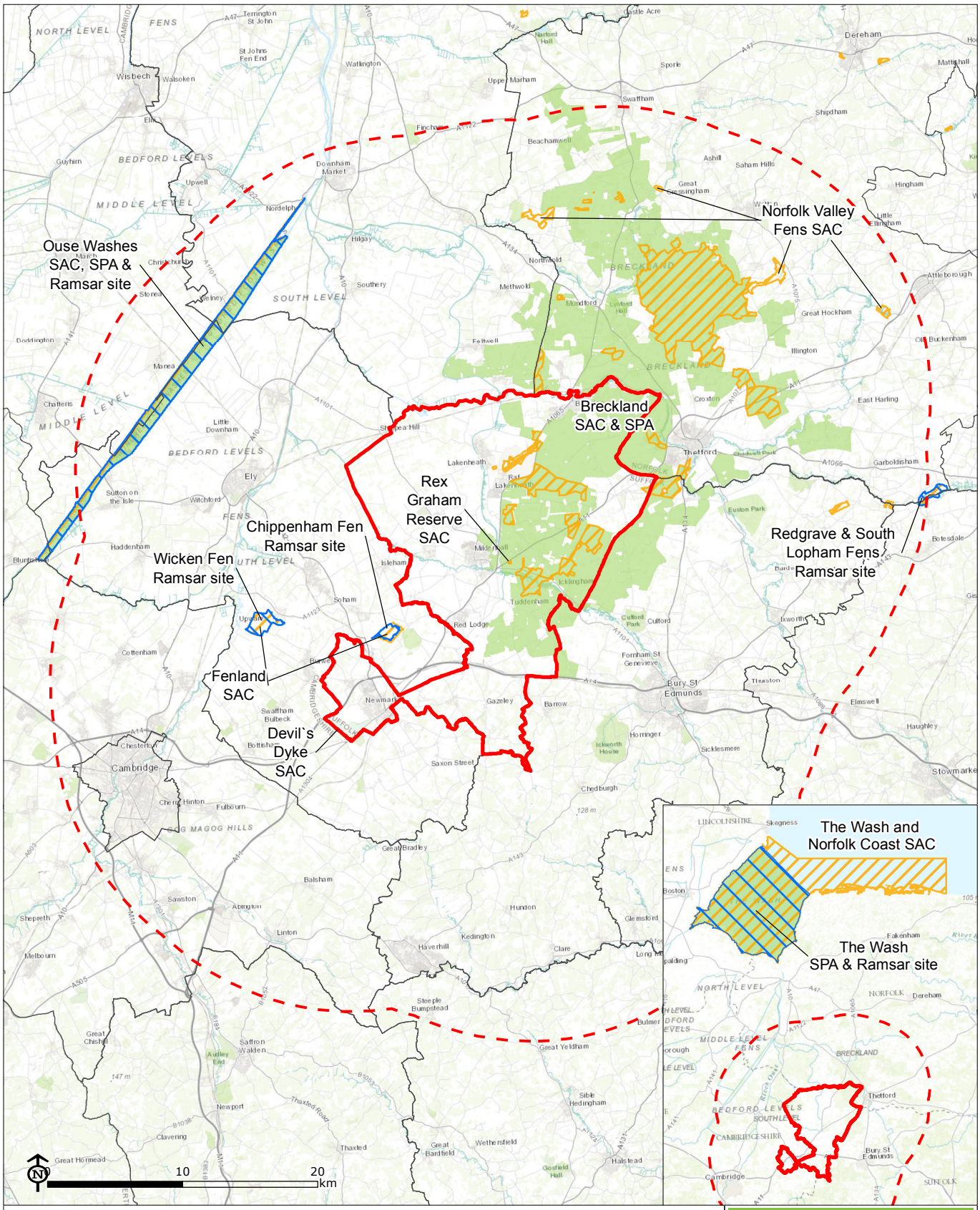
- Direct loss or physical damage due to construction.
- Disturbance and other urban edge effects from construction or occupation of buildings.
- Disturbance from construction or operation of roads.
- Recreational pressure.
- Water quantity.
- Water quality.
- Air quality.

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

4.12 Likely significant effects from the SALP cannot be ruled out at the screening stage: the SALP allocates development across 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 SALP 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

Map Scale @ A4: 1:400,000

Forest Heath Local Plan HRA

Figure 4.1 European Sites Scoped into the HRA

Source: JNCC. Natural England

LUC

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

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5 Appropriate Assessment

5.1 The HRA screening has identified the need for Appropriate Assessment as likely significant effects from the SALP cannot be ruled out without further assessment, either alone or in combination with other plans or projects. For each type of effect that has been identified by the screening, the Appropriate Assessment considers the effects on each of the scoped-in European sites, the elements of the SALP (in combination with other plans or projects, where relevant) that would have those effects, and any mitigation or safeguards in place that would avoid or reduce the effects. The assessment then considers whether there would be an adverse effect on the integrity of a European site.

Scoping the Appropriate Assessment

5.2 The scope of the Appropriate Assessment was narrowed down by considering which parts of the SALP have the potential to give rise to adverse effects on the integrity of European sites and which have no capacity to act as an impact source, as described below.

Settlement boundary reviews

5.3 SALP Policy SA1 and supporting text explain that settlement boundaries have been reviewed to encompass new allocations and planning permissions that have been built or granted since the 1995 Local Plan was prepared and to remove sensitive or protected areas. The new boundaries are depicted on the Policies Map and boundary changes are described in a separate evidence report (10). Residential development will be permitted within the settlement boundaries where it is consistent with other planning policies.

5.4 In some cases the settlement boundary reviews enclose areas that fall within zones of influence within which adverse effects on integrity could occur. However, where settlement boundaries are extended, these are tightly drawn around allocated or permitted developments and therefore provide little scope for further infill development within the revised boundaries. In addition, any such infill development would be subject to project level HRA under the requirements of Core Strategy Policy CS2. Allocated developments within the revised settlement boundaries are separately assessed in this HRA.

5.5 Tightening of settlement boundaries would not give rise to development and in some cases should serve to provide a buffer between the settlement and European sites, or exclude areas which are currently part of Breckland SPA, as is the case for the boundary revision along the southern edge of Brandon.

5.6 **As such, adverse effects on integrity from the settlement boundary reviews (Policy SA1) were ruled out.**

Housing and mixed use allocations in the market towns, key service centres and primary villages

5.7 In line with the SIR policy options for the distribution of housing, all housing and mixed use site allocations in the SALP are located in or adjacent to settlements in the top three levels of the settlement hierarchy (Market Towns, Key Service Centres and Primary Villages) as these are most likely to provide sustainable locations for growth. The site allocations are made by Policies SA2-SA14 (see Table 2.1).

5.8 New development would be the source of any significant effects on European sites arising from the SALP, for example through land-take, an increase in population in proximity to European sites or an increase in road traffic. However, not all new development would lead to adverse effects on

integrity. The assessment below considers the different types of effect on European sites that could potentially result from each of the SALP site allocations.

5.9 **As such, adverse effects on integrity from housing and mixed use allocations in the market towns, key service centres and primary villages (Policies SA2-SA14) are considered further below.**

Site for allocation in the secondary villages

5.10 Housing sites are not being allocated in the secondary villages. However, to cater for projected need, Policy SA15 allocates a 0.75 ha site for the expansion of Moulton Primary School to the north of the Moulton settlement boundary. The assessment below considers the different types of effect on European sites that could potentially result from this SALP site allocation.

5.11 **As such, adverse effects on integrity from the expansion of Moulton Primary School (Policy SA15) are considered further below.**

Economy and jobs

5.12 Policy SA17 of the SALP proposes two employment allocations, one at Mildenhall and the other at Newmarket. The assessment below considers the different types of effect on European sites that could potentially result from these SALP site allocations.

5.13 Three mixed use allocations with an employment component are noted in this section of the SALP but the policies proposing them are set out earlier on in the SALP, alongside the other housing allocation policies.

5.14 In addition, Policy SA16 protects a number of existing employment sites for employment purposes. Since this policy does not propose development, it is not capable of adverse effects on integrity.

5.15 **As such, adverse effects on integrity from employment allocations (Policy SA17) are considered further below. Adverse effects on integrity from the policy to protect existing employment sites for employment purposes (Policy SA16) were ruled out.**

Retail and town centres

5.16 Policy SA18 of the SALP proposes a retail allocation at Exning Road, Newmarket. The assessment below considers the different types of effect on European sites that could potentially result from this SALP site allocation.

5.17 Also in this section of the SALP, Policy SA19 sets out the Council's intention to prepare masterplans to guide future town centre development in Brandon, Mildenhall and Newmarket. Policy SA19 does not actually propose development and is therefore not capable of adverse effects on integrity.

5.18 **As such, adverse effects on integrity from the Exning Road retail allocation provided for by (Policy SA18) are considered further below. Adverse effects on integrity from the policy to prepare masterplans to guide future town centre development in Brandon, Mildenhall and Newmarket (Policy SA19) were ruled out.**

Relationship with SIR

5.19 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 being prepared and consulted on in parallel with the SALP. 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 SALP). 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.

5.20 Table 5.1 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 site-specific issues, these were dealt with in the HRA of the SALP on an exception basis.

Table 5.1 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

5.21 Direct loss of or physical damage to designated habitats or habitats on which designated species rely could result from construction of new development. Construction could also cause direct mortality of designated species.

European sites potentially affected

5.22 The European sites potentially affected are those located wholly or partly within the area boundary:

- Breckland SAC and SPA.
- Devil's Dyke SAC.
- Rex Graham Reserve SAC.

Assessment

5.23 As well as direct loss of or physical damage to designated habitats or species, we also considered whether construction could also result in loss of or damage to habitats on which designated species rely outside of the designated sites, in accordance with the 'Holohan' judgment. Discussion with Natural England and consideration of the ecological requirements of the designated species of the European sites above indicates that the stone curlew

population of Breckland SPA is dependent on nesting habitat beyond the site boundary. This assessment therefore has regard to 1 km grid squares with five or more recorded stone curlew nesting attempts during 2011-2015 that have been identified by Natural England as contributing to the integrity of Breckland SPA.

5.24 As such, effects are considered likely to occur if a site allocation:

- overlaps any European site; or
- overlaps a 1 km grid square with >=5 stone curlew nesting attempts during 2011-2015 associated with Breckland SPA.

5.25 Table 5.2 considers each of the site allocations in the SALP against the factors listed above.

Table 5.2 Potential for site allocations to cause direct loss or damage to European sites and supporting habitats

Site and proposed use	Direct loss / damage
Housing and mixed use site allocations in the market towns (including allocation for new cemetery)	
BRANDON	
SA2(a) Land at Warren Close Housing	Adverse effects on integrity ruled out Site does not overlap any European site or stone curlew nesting habitat functionally linked to Breckland SPA
SA2(b) Land off Gas House Drove Housing	Adverse effects on integrity ruled out Site does not overlap any European site or stone curlew nesting habitat functionally linked to Breckland SPA
SA3 Brandon Cemetery New cemetery site	Adverse effects on integrity ruled out Site does not overlap any European site or stone curlew nesting habitat functionally linked to Breckland SPA
MILDENHALL	
SA4(a) Land west of Mildenhall Housing, employment (B1, B2 and B8 use classes), schools, leisure facilities and public services	Adverse effects on integrity ruled out Site does not overlap any European site or stone curlew nesting habitat functionally linked to Breckland SPA
SA5(a) Land at 54 Kingsway Housing	Adverse effects on integrity ruled out Site does not overlap any European site or stone curlew nesting habitat functionally linked to Breckland SPA
SA5(b) District Council Offices, College Heath Road Housing	Adverse effects on integrity ruled out Site does not overlap any European site or stone curlew nesting habitat functionally linked to Breckland SPA
NEWMARKET	
SA6(a) Brickfield Stud, Exning Road Housing	Adverse effects on integrity ruled out Site does not overlap any European site or stone curlew nesting habitat functionally linked to Breckland SPA
SA6(b) Land at Black Bear Lane and Rowley Drive junction Housing, racehorse training yard and paddock	Adverse effects on integrity ruled out Site does not overlap any European site or stone curlew nesting habitat functionally linked to Breckland SPA
SA6(c) Land at Phillips Close and grassland south-west of Leaders Way and Sefton Way Housing	Adverse effects on integrity ruled out Site does not overlap any European site or stone curlew nesting habitat functionally linked to Breckland SPA

Site and proposed use	Direct loss / damage
SA6(d) Former St Felix Middle School site Housing	Adverse effects on integrity ruled out Site does not overlap any European site or stone curlew nesting habitat functionally linked to Breckland SPA
SA6(e) Land adjacent to Jim Joel Court Housing	Adverse effects on integrity ruled out Site does not overlap any European site or stone curlew nesting habitat functionally linked to Breckland SPA
SA6(f) Land at 146a High Street Housing	Adverse effects on integrity ruled out Site does not overlap any European site or stone curlew nesting habitat functionally linked to Breckland SPA
SA6(g) Land at Hatchfield Farm Housing, employment (B1, B2 and B8 use classes), school	Adverse effects on integrity ruled out Site does not overlap any European site or stone curlew nesting habitat functionally linked to Breckland SPA
Housing and mixed use allocations in the key service centres	
LAKENHEATH	
SA7(a) Matthews Nursery Housing and retail	Adverse effects on integrity ruled out Site does not overlap any European site or stone curlew nesting habitat functionally linked to Breckland SPA
SA7(b) Land west of Eriswell Road Housing	Adverse effects on integrity ruled out Site does not overlap any European site or stone curlew nesting habitat functionally linked to Breckland SPA
SA8(a) Rabbit Hill Covert, Station Road Housing	Adverse effects on integrity ruled out Site does not overlap any European site or stone curlew nesting habitat functionally linked to Breckland SPA
SA8(b) Land north of Station Road Housing and primary school	Adverse effects on integrity ruled out Site does not overlap any European site or stone curlew nesting habitat functionally linked to Breckland SPA
SA8(c) Land off Briscoe Way Housing	Adverse effects on integrity ruled out Site does not overlap any European site or stone curlew nesting habitat functionally linked to Breckland SPA
RED LODGE	
SA9(a) Land off Turnpike Road and Coopers Yard Housing	Adverse effects on integrity ruled out Site does not overlap any European site or stone curlew nesting habitat functionally linked to Breckland SPA
SA9(b) Land east of Red Lodge (north) Housing	Adverse effects on integrity ruled out Site does not overlap any European site or stone curlew nesting habitat functionally linked to Breckland SPA
SA9(c) Land east of Red Lodge (south) Housing	Adverse effects on integrity ruled out Site does not overlap any European site or stone curlew nesting habitat functionally linked to Breckland SPA
SA9(d) Land west of Newmarket Road and north of Elms Road Housing	Adverse effects on integrity ruled out Site does not overlap any European site or stone curlew nesting habitat functionally linked to Breckland SPA
SA10(a) Land north of Acorn Way Housing, employment (B1, B2 and B8 use classes), and primary school	Adverse effects on integrity ruled out Site does not overlap any European site or stone curlew nesting habitat functionally linked to Breckland SPA

Site and proposed use	Direct loss / damage
Housing and mixed use allocations in the primary villages	
BECK ROW	
SA11(a) Land adjacent to St Johns Street Housing	Adverse effects on integrity ruled out Site does not overlap any European site or stone curlew nesting habitat functionally linked to Breckland SPA
SA11(b) Land adjacent to and south of the caravan park, Aspal Lane Housing	Adverse effects on integrity ruled out Site does not overlap any European site or stone curlew nesting habitat functionally linked to Breckland SPA
SA11(c) Land east of Aspal Lane Housing	Adverse effects on integrity ruled out Site does not overlap any European site or stone curlew nesting habitat functionally linked to Breckland SPA
SA11(d) Land adjacent to Beck Lodge Farm Housing	Adverse effects on integrity ruled out Site does not overlap any European site or stone curlew nesting habitat functionally linked to Breckland SPA
EXNING	
SA12(a) Land south of Burwell Road and west of Queens View Housing	Adverse effects on integrity ruled out Site does not overlap any European site or stone curlew nesting habitat functionally linked to Breckland SPA
KENTFORD	
SA13(a) Land to the rear of The Kentford Housing	Adverse effects on integrity ruled out Site does not overlap any European site or stone curlew nesting habitat functionally linked to Breckland SPA
SA13(b) Land at Meddler Stud Housing and racehorse training establishment	Adverse effects on integrity ruled out Site does not overlap any European site or stone curlew nesting habitat functionally linked to Breckland SPA
WEST ROW	
SA14(a) Land east of Beeches Road Housing	Adverse effects on integrity ruled out Site does not overlap any European site or stone curlew nesting habitat functionally linked to Breckland SPA
Site for allocation in the secondary villages	
SA15 Moulton Primary School Expansion of primary school	Adverse effects on integrity ruled out Site does not overlap any European site or stone curlew nesting habitat functionally linked to Breckland SPA
Employment allocations	
SA17(a) Mildenhall Academy and Dome Leisure Centre site, Mildenhall Employment (B1 use class)	Adverse effects on integrity ruled out Site does not overlap any European site or stone curlew nesting habitat functionally linked to Breckland SPA
SA17(b) St Leger, Newmarket Employment (B1 and B8 use classes)	Adverse effects on integrity ruled out Site does not overlap any European site or stone curlew nesting habitat functionally linked to Breckland SPA
Retail allocation	
SA18(a) Former Gas Works, Exning Road, Newmarket Convenience food store (A1 use class)	Adverse effects on integrity ruled out Site does not overlap any European site or stone curlew nesting habitat functionally linked to Breckland SPA

5.26 As set out in Table 5.2, **the potential for adverse effects on integrity from direct loss or physical damage due to construction was ruled out** 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

5.27 The construction or occupation of new buildings provided for by the SALP could result in adverse effects on sensitive, designated species due to increases in noise and vibration or light pollution, the presence of buildings and people within the development boundary, or increased numbers of pets and other predators associated with urban areas.

5.28 Other types of potential effect on designated species and habitats associated with increased public access are considered within the 'recreation pressure' effect category below.

European sites potentially affected

5.29 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 Forest Heath area, 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.

5.30 The European site potentially affected is:

- Breckland SPA.

Context

5.31 Considering the particular sensitivity of Breckland SPA's designated bird species to these types or urban edge effects, correlative studies of stone curlews (11), nightjars (12) (13) (14) (15) and woodlarks (16) 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 (11). 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.

5.32 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 (11).

5.33 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 (17).

5.34 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 (11) (17).

5.35 In relation to predation effects, evidence shows that pet cats can roam up to 1.5 km at night (18) (19). As well as pets, research has shown that heathland close to urban areas can have higher

densities of mammalian predators such as foxes (20) and that there is an increase in the numbers of crows and magpies on sites with greater human activity (21).

5.36 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 (15). In relation to avoidance of the direct effects of development 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.

5.37 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.

5.38 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 square 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

5.39 Given the information above, the site allocations 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.

5.40 These zones of influence for disturbance and other urban edge effects are shown in Figure 5.1[12] 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 SALP 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 HRA of the Core Strategy and of the SALP prior to the current stage of plan making. This data better reflects the areas of the SPA used by stone

[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

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 SALP.

5.41 Table 5.3 considers each of the site allocations in the SALP in relation to the zones of influence listed above.

Table 5.3 Potential for site allocations to cause disturbance and other urban edge effects from construction or occupation of buildings

Site and proposed use	Assessment of disturbance and other urban edge effects
Housing and mixed use site allocations in the market towns (including allocation for new cemetery)	
BRANDON	
SA2(a) Land at Warren Close Housing	Potential adverse effects on integrity Site is within the 1,500 m of components of Breckland SPA designated for stone curlew
SA2(b) Land off Gas House Drove Housing	Potential adverse effects on integrity Site is within the 1,500 m of components of Breckland SPA designated for stone curlew
SA3 Brandon Cemetery New cemetery site	Adverse effects on integrity ruled out Allocation is not for built development
MILDENHALL	
SA4(a) Land west of Mildenhall Housing, employment (B1, B2 and B8 use classes), schools, leisure facilities and public services	Adverse effects on integrity ruled out Site is not within 1,500 m of components of Breckland SPA designated for stone curlew, nor within 1,500 m of functionally linked stone curlew nesting areas, nor within 400 m of components of Breckland SPA designated for woodlark or nightjar
SA5(a) Land at 54 Kingsway Housing	Potential adverse effects on integrity Site is within the 1,500 m of components of Breckland SPA designated for stone curlew
SA5(b) District Council Offices, College Heath Road Housing	Potential adverse effects on integrity Site is within the 1,500 m of components of Breckland SPA designated for stone curlew
NEWMARKET	
SA6(a) Brickfield Stud, Exning Road Housing	Adverse effects on integrity ruled out Site is not within 1,500 m of components of Breckland SPA designated for stone curlew, nor within 1,500 m of functionally linked stone curlew nesting areas, nor within 400 m of components of Breckland SPA designated for woodlark or nightjar
SA6(b) Land at Black Bear Lane and Rowley Drive junction Housing, racehorse training yard and paddock	Adverse effects on integrity ruled out Site is not within 1,500 m of components of Breckland SPA designated for stone curlew, nor within 1,500 m of functionally linked stone curlew nesting areas, nor within 400 m of components of Breckland SPA designated for woodlark or nightjar
SA6(c) Land at Phillips Close and grassland south-west of Leaders Way and Sefton Way Housing	Adverse effects on integrity ruled out Site is not within 1,500 m of components of Breckland SPA designated for stone curlew, nor within 1,500 m of functionally linked stone curlew nesting areas, nor within 400 m of components of Breckland SPA designated for woodlark or nightjar

Site and proposed use	Assessment of disturbance and other urban edge effects
SA6(d) Former St Felix Middle School site Housing	Adverse effects on integrity ruled out Site is not within 1,500 m of components of Breckland SPA designated for stone curlew, nor within 1,500 m of functionally linked stone curlew nesting areas, nor within 400 m of components of Breckland SPA designated for woodlark or nightjar
SA6(e) Land adjacent to Jim Joel Court Housing	Adverse effects on integrity ruled out Site is not within 1,500 m of components of Breckland SPA designated for stone curlew, nor within 1,500 m of functionally linked stone curlew nesting areas, nor within 400 m of components of Breckland SPA designated for woodlark or nightjar
SA6(f) Land at 146a High Street Housing	Adverse effects on integrity ruled out Site is not within 1,500 m of components of Breckland SPA designated for stone curlew, nor within 1,500 m of functionally linked stone curlew nesting areas, nor within 400 m of components of Breckland SPA designated for woodlark or nightjar
SA6(g) Land at Hatchfield Farm Housing, employment (B1, B2 and B8 use classes), school	Adverse effects on integrity ruled out Site is not within 1,500 m of components of Breckland SPA designated for stone curlew, nor within 1,500 m of functionally linked stone curlew nesting areas, nor within 400 m of components of Breckland SPA designated for woodlark or nightjar
Housing and mixed use allocations in the key service centres	
LAKENHEATH	
SA7(a) Matthews Nursery Housing and retail	Adverse effects on integrity ruled out Site is not within 1,500 m of components of Breckland SPA designated for stone curlew, nor within 1,500 m of functionally linked stone curlew nesting areas, nor within 400 m of components of Breckland SPA designated for woodlark or nightjar
SA7(b) Land west of Eriswell Road Housing	Potential adverse effects on integrity Site is within 1,500 m of stone curlew nesting attempts grid squares to the east
SA8(a) Rabbit Hill Covert, Station Road Housing	Potential adverse effects on integrity Approximately two thirds of site (the eastern part) is within 1,500 m of a stone curlew nesting attempts grid square to the south east.
SA8(b) Land north of Station Road Housing and primary school	Potential adverse effects on integrity Approximately half of site (the eastern part) is within 1,500 m of two stone curlew nesting attempts grid squares, one to the north east at Fenhouse Heath and one to the south east at Lakenheath Airfield
SA8(c) Land off Briscoe Way Housing	Adverse effects on integrity ruled out Site is not within 1,500 m of components of Breckland SPA designated for stone curlew, nor within 1,500 m of functionally linked stone curlew nesting areas, nor within 400 m of components of Breckland SPA designated for woodlark or nightjar

Site and proposed use	Assessment of disturbance and other urban edge effects
RED LODGE	
SA9(a) Land off Turnpike Road and Coopers Yard Housing	Adverse effects on integrity ruled out Site is not within 1,500 m of components of Breckland SPA designated for stone curlew, nor within 1,500 m of functionally linked stone curlew nesting areas, nor within 400 m of components of Breckland SPA designated for woodlark or nightjar
SA9(b) Land east of Red Lodge (north) Housing	Potential adverse effects on integrity Approximately two thirds of site (southern part) is within the 1,500 m of components of Breckland SPA designated for stone curlew; a very small area (approximately 0.14 ha) in the south east of the site is also within 1500 m of a stone curlew nesting attempts grid square to the south east
SA9(c) Land east of Red Lodge (south) Housing	Potential adverse effects on integrity Site is within 1,500 m of components of Breckland SPA designated for stone curlew and 1,500 m of a stone curlew nesting attempts grid square to the south east
SA9(d) Land west of Newmarket Road and north of Elms Road Housing	Adverse effects on integrity ruled out Site is not within 1,500 m of components of Breckland SPA designated for stone curlew, nor within 1,500 m of functionally linked stone curlew nesting areas, nor within 400 m of components of Breckland SPA designated for woodlark or nightjar
SA10(a) Land north of Acorn Way Housing, employment (B1, B2 and B8 use classes), and primary school	Potential adverse effects on integrity A small area in the south east of the site is within the 1,500 m of components of Breckland SPA designated for stone curlew
Housing and mixed use allocations in the primary villages	
BECK ROW	
SA11(a) Land adjacent to St Johns Street Housing	Adverse effects on integrity ruled out Site is not within 1,500 m of components of Breckland SPA designated for stone curlew, nor within 1,500 m of functionally linked stone curlew nesting areas, nor within 400 m of components of Breckland SPA designated for woodlark or nightjar
SA11(b) Land adjacent to and south of the caravan park, Aspal Lane Housing	Adverse effects on integrity ruled out Site is not within 1,500 m of components of Breckland SPA designated for stone curlew, nor within 1,500 m of functionally linked stone curlew nesting areas, nor within 400 m of components of Breckland SPA designated for woodlark or nightjar
SA11(c) Land east of Aspal Lane Housing	Adverse effects on integrity ruled out Site is not within 1,500 m of components of Breckland SPA designated for stone curlew, nor within 1,500 m of functionally linked stone curlew nesting areas, nor within 400 m of components of Breckland SPA designated for woodlark or nightjar
SA11(d) Land adjacent to Beck Lodge Farm Housing	Adverse effects on integrity ruled out Site is not within 1,500 m of components of Breckland SPA designated for stone curlew, nor within 1,500 m of functionally linked stone curlew nesting areas, nor within 400 m of components of Breckland SPA designated for woodlark or nightjar

Site and proposed use	Assessment of disturbance and other urban edge effects
EXNING	
SA12(a) Land south of Burwell Road and west of Queens View Housing	Adverse effects on integrity ruled out Site is not within 1,500 m of components of Breckland SPA designated for stone curlew, nor within 1,500 m of functionally linked stone curlew nesting areas, nor within 400 m of components of Breckland SPA designated for woodlark or nightjar
KENTFORD	
SA13(a) Land to the rear of The Kentford Housing	Potential adverse effects on integrity Site is within the 1,500 m of components of Breckland SPA designated for stone curlew and within 1,500 m of a stone curlew nesting attempts grid square to the north east
SA13(b) Land at Meddler Stud Housing and racehorse training establishment	Potential adverse effects on integrity Most of site is within the 1,500 m of components of Breckland SPA designated for stone curlew and within 1,500 m of a stone curlew nesting attempts grid square to the north east
WEST ROW	
SA14(a) Land east of Beeches Road Housing	Adverse effects on integrity ruled out Site is not within 1,500 m of components of Breckland SPA designated for stone curlew, nor within 1,500 m of functionally linked stone curlew nesting areas, nor within 400 m of components of Breckland SPA designated for woodlark or nightjar
Site for allocation in the secondary villages	
SA15 Moulton Primary School Expansion of primary school	Adverse effects on integrity ruled out Site is not within 1,500 m of components of Breckland SPA designated for stone curlew, nor within 1,500 m of functionally linked stone curlew nesting areas, nor within 400 m of components of Breckland SPA designated for woodlark or nightjar
Employment allocations	
SA17(a) Mildenhall Academy and Dome Leisure Centre site, Mildenhall Employment (B1 use class)	Potential adverse effects on integrity Site is within the 1,500 m of components of Breckland SPA designated for stone curlew and within 400 m of components designated for woodlark or nightjar
SA17(b) St Leger, Newmarket Employment (B1 and B8 use classes)	Adverse effects on integrity ruled out Site is not within 1,500 m of components of Breckland SPA designated for stone curlew, nor within 1,500 m of functionally linked stone curlew nesting areas, nor within 400 m of components of Breckland SPA designated for woodlark or nightjar
Retail allocation	
SA18(a) Former Gas Works, Exning Road, Newmarket Convenience food store (A1 use class)	Adverse effects on integrity ruled out Site is not within 1,500 m of components of Breckland SPA designated for stone curlew, nor within 1,500 m of functionally linked stone curlew nesting areas, nor within 400 m of components of Breckland SPA designated for woodlark or nightjar

5.42 Table 5.3 indicates that the following housing and mixed use allocations could result in disturbance and other urban edge effects on Breckland SPA:

- Brandon: SA2(a), SA2(b).
- Mildenhall: SA5(a), SA5(b).

- Lakenheath: SA7(b), SA8(a), SA8(b).
- Red Lodge: SA9(b), SA9(c), SA10(a).
- Kentford: SA13(a), SA13(b).

5.43 Table 5.3 suggests the following employment allocation could result in disturbance and other urban edge effects on Breckland SPA:

- Mildenhall: SA17(a).

Potential for in combination effects

5.44 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 area Core Strategy, which could contribute to urban edge effects in combination. As outlined in Appendix 1, these 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

5.45 Policy CS2 of the Core Strategy (see above) requires project level HRA for development proposals within the Breckland SPA HRA constraint zones that correspond to the zones of influence 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.

5.46 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.

5.47 However, it was deemed inappropriate to rely wholly on the generic protection offered by these policies in coming to a conclusion on the SALP allocations within the constraint buffers since a high level assessment, appropriate to the HRA of a Local Plan, is possible at the plan-making stage.

Review of existing project level HRAs

5.48 Some allocations already have associated project level HRAs and factual information contained in these was referred to, where relevant. No reliance was placed on the conclusions of these project level HRAs, however, 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.

Approach to further assessment of allocations

5.49 The potential for urban edge effects from the site allocations identified in paragraphs 5.42 to 5.43 is further assessed in Table 5.4 and a conclusion drawn as to whether adverse effects on integrity can be ruled out.

5.50 In light of the evidence on the nature of effects summarised above and informed by discussion with Natural England, the Appropriate Assessment of these site allocations considered the potential for adverse effects on integrity in more detail by reference to the following three elements of disturbance and other urban edge effects that are thought to be most significant in the context of Breckland SPA:

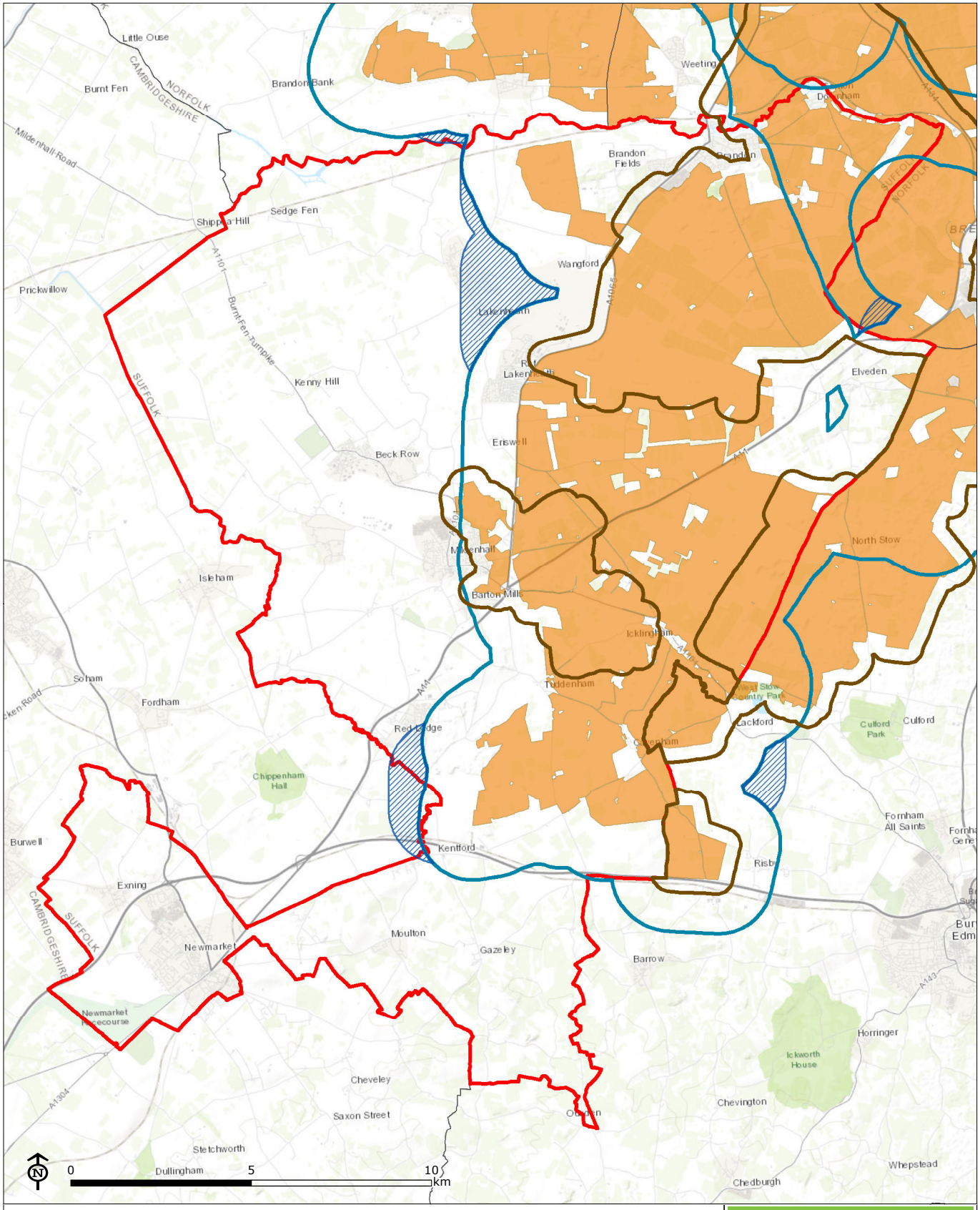
- *Presence of buildings (including light pollution)*: potential adverse effect on integrity alone or in combination where development advances the line of development towards or increases the perception of surrounding built development at the component of

Breckland SPA or functionally linked habitat giving rise to the 1,500 m or 400 m zone(s) of influence in relation to which potential effects from the site allocation are identified in Table 5.4.

- *Domestic cat predation*: potential adverse effect on integrity alone or in combination if cats are likely to be able to move between the development and the component of Breckland SPA or functionally linked habitat giving rise to the 1,500 m or 400 m zone(s) of influence in relation to which the potential effects from the site allocation are identified in Table 5.4. Can be ruled out if significant physical barriers exist between the allocated site and Breckland SPA, for example major roads or water courses.
- *Noise pollution*: potential adverse effect on integrity alone or in combination unless additional noise generated by the development is unlikely to be perceptible at the component of Breckland SPA or functionally linked habitat giving rise to the 1,500 m or 400 m zone(s) of influence in relation to which potential effects from the site allocation are identified in Table 5.4 because of more significant noise sources between the development site and the SPA habitat. Relevant factors include the size of the development, the allocated use, and the nature of the intervening noise sources, for example major roads and existing development.

5.51 It should be noted, however, that urban edge effects on sensitive heathland sites such as Breckland SPA are not fully understood and the three more significant components above serve, to some extent, as a proxy in this plan-level HRA for a complex range of effects that may include higher densities of natural predators (e.g. foxes, corvids) close to human habitation, changes in air quality due to domestic fires/wood burners and other effect types. To allow these effects to be assessed in more detail for specific development proposals, Natural England has commissioned Footprint Ecology to produce a predictive model for estimating the impact of development on stone curlew numbers in different areas. The model was produced in 2016 and is in the form of a spreadsheet based on the most recent work (22) that predicts stone curlew numbers for a given area based on data on the distance to the nearest trunk road, area of current housing, amount of new housing and the amount of woodland. Areas of buildings or other data can be manipulated within the spreadsheet to generate predictions of changes in stone curlew use. Where such modelling has been undertaken in relation to planning applications that are consistent with the SALP site allocation policies being assessed in this HRA, the conclusions have been taken into consideration in coming to an opinion on whether adverse effects on integrity can be ruled out.

5.52 **The further assessment of these allocations found adverse effects on the integrity of Breckland SPA in relation to disturbance and other urban edge effects (presence of buildings including light pollution; domestic cat predation; or noise pollution) could be ruled out, both alone and in combination for all site allocations.**



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

LUC

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_002_ADOPT_Fig4-1_Disturbance 04/04/2018

Table 5.4 Further assessment of allocations within relevant Breckland SPA zones of influence for urban edge effects

Site	Reason potential for adverse effects on integrity identified	Status of any related proposal	Presence of buildings (including light pollution)	Domestic cat predation	Noise pollution	Overall conclusion
Brandon						
SA2(a) Land at Warren Close – 23 units housing	Within 1,500 m (500-600 m at closest point) of components of Breckland SPA designated for stone curlew	None	This site is surrounded by the existing built environment and therefore will not increase the perception of surrounding built development at the stone curlew component of Breckland SPA within 500-600 m. Conclusion: The allocation will not result in presence of buildings (including light pollution) effects alone or in combination.	Given the site's location in the town, domestic cats would need to navigate a number of roads to travel between the site and the SPA. This and the small size of the allocation (both alone and in combination with the other allocation at Brandon) mean that cat predation effects from the site would be negligible. Conclusion: The allocation will not result in cat predation effects alone or in combination.	The small scale of the housing development (both alone and in combination with the other allocation at Brandon) means that the amount of noise generated will be small and unlikely to be perceptible above that generated by the surrounding buildings of Brandon. Conclusion: The allocation will not result in noise pollution effects alone or in combination.	Adverse effects on the integrity of Breckland SPA can be ruled out, both alone and in combination.
SA2(b) Land off Gas House Drove – 10 units housing	Within 1,500 m (800-900 m at closest point) of components of Breckland SPA designated for stone curlew	Planning permission granted DC/16/1450/OUT for 8 dwellings	This site is surrounded by the existing built environment except for a small section to the north and therefore will not increase the perception of surrounding built development at the stone curlew component of Breckland SPA within 800-900 m. Conclusion: The allocation will not result in presence of buildings (including light pollution) effects alone or in combination.	Given the site's location in the town, domestic cats would need to either cross the Little Ouse River or navigate a number of roads to travel between the site and the SPA. This and the small size of the allocation, both alone and in combination with the other allocation at Brandon, mean that cat predation effects from the site would be negligible. Conclusion: The allocation will not result in cat predation effects alone or	The small scale of the housing development, both alone and in combination with the other allocation at Brandon, means that the amount of noise generated will be small and unlikely to be perceptible above that generated by the surrounding buildings of Brandon. Conclusion: The allocation will not result in noise pollution effects alone or in combination.	Adverse effects on the integrity of Breckland SPA can be ruled out, both alone and in combination.

Site	Reason potential for adverse effects on integrity identified	Status of any related proposal	Presence of buildings (including light pollution)	Domestic cat predation	Noise pollution	Overall conclusion
				in combination.		
Mildenhall						
SA5(a) Land at 54 Kingsway – 23 units housing	Within 1,500 m (1,100-1,200 m at closest point) of components of Breckland SPA designated for stone curlew	None	This site is surrounded by the existing built environment and therefore will not increase the perception of surrounding built development at the stone curlew component of Breckland SPA within 1,100-1,200 m. Conclusion: The allocation will not result in presence of buildings (including light pollution) effects alone or in combination.	Given the site's location in the town, domestic cats would need to navigate a number of roads to travel between the site and the SPA. The main bulk of the SPA is also separated from the site by the A1065. This, the separation distance (1,100-1,200 m), and the relatively small size of the allocation, both alone and in combination with the other residential allocation to Mildenhall, mean that cat predation effects from the site would be negligible. Conclusion: The allocation will not result in cat predation effects alone or in combination.	Allocation is for small scale housing development (23 dwellings) so that the amount of noise generated will be small and unlikely to be perceptible above that generated by the surrounding buildings of Mildenhall. Conclusion: The allocation will not result in noise pollution effects alone or in combination.	Adverse effects on the integrity of Breckland SPA can be ruled out, both alone and in combination.
SA5(b) District Council Offices, College Heath Road – 89 units housing	Within 1,500 m (1,100-1,200 m at closest point) of components of Breckland SPA designated for stone curlew	None	This site is surrounded by the existing built environment and therefore will not increase the perception of surrounding built development at the stone curlew component of Breckland SPA within 1,100-1,200 m. Conclusion: The allocation will not result in presence of buildings (including light	Given the site's location in the town, domestic cats would need to navigate a number of roads to travel between the site and the SPA. The main bulk of the SPA is also separated from the site by the A1065. This, the separation distance (1,100-1,200 m), and the scale of the allocation,	Although the allocation is for medium scale housing development (89 dwellings) it is separated from the nearest parts of the SPA to the east by built development for the whole distance and a minor road (Brandon Road), and to the south by a major road (A1101/Kingsway) and 250 m of existing built development. As such it is judged unlikely	Adverse effects on the integrity of Breckland SPA can be ruled out, both alone and in combination.

Site	Reason potential for adverse effects on integrity identified	Status of any related proposal	Presence of buildings (including light pollution)	Domestic cat predation	Noise pollution	Overall conclusion
			pollution) effects alone or in combination.	both alone and in combination with the other residential allocation to Mildenhall, mean that cat predation effects from the site would be negligible. Conclusion: The allocation will not result in cat predation effects alone or in combination.	that additional noise generated by the development will be perceptible at the SPA. Conclusion: The allocation will not result in noise pollution effects alone or in combination.	
SA17(a) Mildenhall Academy and Dome Leisure Centre site – B1 employment	Within 1,500 m (600-700 m at closest point) of components of Breckland SPA designated for stone curlew and within 400 m (0-100 m at closest point) of components designated for woodlark or nightjar	None	The 4.0 ha site is on the south east edge of Mildenhall, is directly adjacent to Breckland SPA and is not screened from the SPA by existing built development. It is noted, however, that the site already has built development (a school and leisure centre) and that the proposed re-use for B1 development may not significantly alter the degree of development of the site or the associated light pollution. It is judged that the risk of presence of buildings (including light pollution) effects is adequately mitigated by the requirement in Policy SA17 for project level HRA. This should ensure that a design and layout that avoids an increase in presence and	No residential component to allocation. Conclusion: The allocation will not result in cat predation effects alone or in combination.	Although the site is separated from the nearest parts of the SPA to the east by a major road (A1101/Kingsway), the fact that it is directly adjacent to the SPA to the east, that it is only separated from the SPA by approximately 250 m of open land to the south, and that it is allocated for employment use creates a risk of significant noise pollution effects. Some mitigation of potential noise pollution effects from the operation of the site is provided by the fact that this employment allocation is limited to B1 use, i.e. office, research and development, or industrial processes compatible with a residential area. It is also noted that the site already has built development (a school and leisure centre) and that the proposed re-use for B1 development may not significantly alter the noise	Adverse effects on the integrity of Breckland SPA can be ruled out, both alone and in combination.

Site	Reason potential for adverse effects on integrity identified	Status of any related proposal	Presence of buildings (including light pollution)	Domestic cat predation	Noise pollution	Overall conclusion
			light pollution effects can be secured (e.g. appropriate size and positioning of buildings, timing and duration of construction activities, type of light source and level of lighting). Generic protection is also provided by policies CS2 and DM10, as outlined earlier in this section. Conclusion: The allocation will not result in presence of buildings (including light pollution) effects alone or in combination.		pollution from the site once construction is complete. A residual risk exists, however, that site preparation and construction could lead to direct disturbance, as could some B1 uses. It is judged that the residual risk is adequately mitigated by: - the requirement in Policy SA17 that redevelopment of the site *"would need to have regard to its location adjacent to Breckland SPA which may limit the type of employment use that would be acceptable"* which should ensure that B1 proposals which would generate harmful levels of noise pollution would be prevented; and - the requirement for project level HRA which should ensure that any mitigation appropriate to the proposal that comes forward could be secured, for example restricting construction activity to outside of the nesting season. Generic protection is also provided by policies CS2 and DM10, as outlined earlier in this section. Conclusion: The allocation will not result in noise pollution effects alone or in	

Site	Reason potential for adverse effects on integrity identified	Status of any related proposal	Presence of buildings (including light pollution)	Domestic cat predation	Noise pollution	Overall conclusion
					combination.	
Lakenheath						
SA7(b) Land west of Eriswell Road – 140 units housing	Within 1,500 m (900-1,000 m at closest point) of stone curlew nesting attempts grid squares to the east	Planning permission granted F/2013/0394/OUT	This site is located on the western side of Lakenheath and therefore will not increase the perception of surrounding built development at the stone curlew nesting attempts grid squares to the east of Lakenheath within 900-1,000 m. Conclusion: The allocation will not result in presence of buildings (including light pollution) effects alone or in combination.	The site is within 900-1,000 m of two stone curlew nesting attempts grid squares to the east, associated with Breckland SPA. Given the site's location in the town, domestic cats would need to cross the B1112 Eriswell Road to travel between the site and the nesting attempts grid squares associated with Breckland SPA and would also need to need to navigate a number of roads and cross the perimeter security fence of Lakenheath air base to access most of the two grid squares. While this is judged to avoid the possibility of an adverse effect on functionally linked stone curlew nesting areas for this allocation alone, the total amount of development allocated to Lakenheath by the SALP (768 dwellings), together with other provision at Lakenheath set out in the SIR presents a potential risk of significant effects in combination.	The amount of noise generated by this development is unlikely to be perceptible at the stone curlew nesting attempts grid squares within 1,500 m above the noise generated by the intervening B1112 and existing buildings of Little Eriswell as well as by Lakenheath airbase which is closer to the grid squares than the allocated site. Conclusion: The allocation will not result in noise pollution effects alone or in combination.	Adverse effects on the integrity of Breckland SPA can be ruled out, both alone and in combination.

Site	Reason potential for adverse effects on integrity identified	Status of any related proposal	Presence of buildings (including light pollution)	Domestic cat predation	Noise pollution	Overall conclusion
				The potential for development at Lakenheath, including the current proposal for this site, to have in combination effects on Breckland SPA has been ruled out by reliance on a EIA Screening Direction by the Secretary of State (dated 20/5/2016) which considers all of the allocated sites and those identified by the in combination assessment and states that in consultation with Natural England it is concluded that would not affect the integrity of Breckland SPA. The fact that Natural England's opinion on this matter is not altered by the most recent (2011-2015) stone curlew nesting attempts data is confirmed by its email to FHDC dated 22/7/2016. Generic protection is also provided by policies CS2 and DM10, as outlined earlier in this section. Conclusion: The allocation will not result in cat predation effects alone or in combination.		
SA8(a) Rabbit Hill Covert,	Approximately two thirds of site (the eastern part)	Planning permission	The site is within 1,300-1,400 m of a stone curlew	The site is within 1,300-1,400 m of a stone curlew	The amount of noise generated by this development is unlikely	Adverse effects on the integrity

Site	Reason potential for adverse effects on integrity identified	Status of any related proposal	Presence of buildings (including light pollution)	Domestic cat predation	Noise pollution	Overall conclusion
Station Road – 81 units housing	is within 1,500 m of a stone curlew nesting attempts grid square to the south east (1,300-1,400m at closest point).	granted F/2013/0345/OUT	nesting attempts grid square to the south east at Lakenheath Airfield. It seems unlikely that additional light pollution from development of this site would be perceptible at the nesting attempts grid square given that land within and adjacent to the grid square is currently lit as part of the operations of Lakenheath Airfield. However, there is a risk that development of the greenfield site, particularly in combination with that of site SA8(b), could result in presence of buildings effects on the stone curlew nesting habitat at the Lakenheath Airfield grid square. Natural England commissioned Footprint Ecology to produce a predictive model for estimating the impact of development on stone curlew numbers in different areas. The model was produced in 2016 and is in the form of a spreadsheet based on the most recent work (22) that predicts stone curlew numbers for a given area based on data on the distance to the nearest trunk road, area of current housing, amount of	nesting attempts grid square. Domestic cats would need to cross the B1112 Eriswell Road and the perimeter security fence of Lakenheath air base to travel between the site and the grid square associated with Breckland SPA which together with the scale of development and the distance between the site and the grid square is judged to avoid the possibility of an adverse effect on functionally linked stone curlew nesting areas for this allocation alone. The total amount of development allocated to Lakenheath by the SALP (768 dwellings), together with other provision at Lakenheath set out in the SIR does, however, present a potential risk of significant effects in combination. The potential for development at Lakenheath, including the current proposal for this site, to have in combination effects on Breckland SPA has been ruled out by reliance on a EIA Screening Direction by the Secretary of State (dated 20/5/2016) which	to be perceptible at the stone curlew nesting attempts grid square within 1,500 m above the noise generated by the intervening B1112 as well as by Lakenheath Airfield and other parts of Lakenheath built up area which are closer to the grid squares than the allocated site. Conclusion: The allocation will not result in noise pollution effects alone or in combination.	of Breckland SPA can be ruled out, both alone and in combination.

Site	Reason potential for adverse effects on integrity identified	Status of any related proposal	Presence of buildings (including light pollution)	Domestic cat predation	Noise pollution	Overall conclusion
			new housing and the amount of woodland. Areas of buildings or other data can be manipulated within the spreadsheet to generate predictions of changes in stone curlew use. To support the project level HRA for this site and SA8(b), Natural England used the model in May 2016 to confirm that the proposed development would not result in effects alone or in combination with other developments proposed on the eastern side of Lakenheath at that time. The application information was submitted prior to the publication by the Council in July 2016 of amended Breckland SPA constraints buffers that ensure up to date data (2011-2015 inclusive) are used to reflect the areas of the SPA and the areas of functionally linked habitat outside the SPA that are important to the qualifying stone curlew population. In advising on the effects of this planning application on Breckland SPA, Natural England paid full regard to the relevant nesting records which also informed the	considers all of the allocated sites and those identified by the in combination assessment and states that in consultation with Natural England it is concluded that would not affect the integrity of Breckland SPA. The fact that Natural England's opinion on this matter is not altered by the most recent (2011-2015) stone curlew nesting attempts data is confirmed by its email to FHDC dated 22/7/2016. Generic protection is also provided by policies CS2 and DM10, as outlined earlier in this section. Conclusion: The allocation will not result in cat predation effects alone or in combination.		

Site	Reason potential for adverse effects on integrity identified	Status of any related proposal	Presence of buildings (including light pollution)	Domestic cat predation	Noise pollution	Overall conclusion
			revised nesting buffers. Accordingly, the updated buffers (which have now caught up with the source nesting records) do not alter Natural England's advice. Generic protection is also provided by policies CS2 and DM10, as outlined earlier in this section. Conclusion: The allocation will not result in presence of buildings (including light pollution) effects alone or in combination.			
SA8(b) Land north of Station Road – 375 units housing and primary school	Approximately two thirds of site (the eastern part) is within 1,500 m of two stone curlew nesting attempts grid squares, one to the north east at Fenhouse Heath (1,300-1,400 m at closest point) and one to the south east at Lakenheath Airfield (1,200-1,300 m at closest point).	Proposal with resolution to approve DC/14/2096/HYB	The northern end of the site is screened from the grid square at Fenhouse Heath by the embankments running alongside a drainage channel known locally as the Cutoff Channel. The remainder of the site is screened from the grid square by existing farm buildings to the east of the site boundary. Presence of buildings (including light pollution) effects on the Fenhouse Heath grid square can therefore be ruled out. In relation to the potential effects on the nesting attempts grid square at Lakenheath Airfield, it seems unlikely that	Domestic cats would need to cross the B1112 Eriswell Road and a variety of drainage channels to travel between the site and the stone curlew nesting attempts grid square at Fenhouse Heath 1,300-1,400 m to the north east. To access the nesting attempts grid square at Lakenheath Airfield 1,200-1,300 m to the south east they would need to cross the B1112 and the perimeter security fence of Lakenheath air base. Together with the scale of development and the distances between the site and the grid squares,	The amount of noise generated by this development is unlikely to be perceptible at the stone curlew nesting attempts grid square within 1,500 m above the noise generated by the intervening B1112. The grid square at Lakenheath Airfield would also be subject to noise from operation of the airbase and from other parts of Lakenheath built up area that are closer to the grid square than the allocated site. Conclusion: The allocation will not result in noise pollution effects alone or in combination.	Adverse effects on the integrity of Breckland SPA can be ruled out, both alone and in combination.

Site	Reason potential for adverse effects on integrity identified	Status of any related proposal	Presence of buildings (including light pollution)	Domestic cat predation	Noise pollution	Overall conclusion
			additional light pollution from development of this site would be perceptible at the nesting attempts grid square given that land within and adjacent to the grid square is currently lit as part of the operations of Lakenheath Airfield. However, there is a risk that development of the greenfield site alone and in combination with that of development at site SA8(a) could result in presence of buildings effects on the stone curlew nesting at the Lakenheath Airfield grid square. These effects have been ruled out by reliance on the Natural England modelling work described under site SA8(a) above. Generic protection is also provided by policies CS2 and DM10, as outlined earlier in this section. Conclusion: The allocation will not result in presence of buildings (including light pollution) effects alone or in combination.	these barriers are judged to avoid the possibility of an adverse effect on functionally linked stone curlew nesting areas for this allocation alone. The total amount of development allocated to Lakenheath by the SALP (768 dwellings), together with other provision at Lakenheath set out in the SIR does, however, present a potential risk of significant effects in combination. The potential for development at Lakenheath, including the current proposal for this site, to have in combination effects on Breckland SPA has been ruled out by reliance on a EIA Screening Direction by the Secretary of State (dated 20/5/2016) which considers all of the allocated sites and those identified by the in combination assessment and states that in consultation with Natural England it is concluded that would not affect the integrity of Breckland SPA. The fact that Natural England's opinion on this matter is not altered by the most recent (2011-2015) stone		

Site	Reason potential for adverse effects on integrity identified	Status of any related proposal	Presence of buildings (including light pollution)	Domestic cat predation	Noise pollution	Overall conclusion
				curlew nesting attempts data is confirmed by its email to FHDC dated 22/7/2016. Generic protection is also provided by policies CS2 and DM10, as outlined earlier in this section. Conclusion: The allocation will not result in cat predation effects alone or in combination.		
Red Lodge						
SA9(b) Land east of Red Lodge (north) – 140 units housing	Approximately two thirds of site (southern part) is within the 1,500 m of components of Breckland SPA designated for stone curlew (1,200-1,300 m at closest point). A very small area (approximately 0.14 ha) in the south east of the site is also within 1500 m of a stone curlew nesting attempts grid square to the south east (1,400-1,500 m at closest point).	This part of the site was removed from the proposal so does not benefit from planning permission.	<u>Effects on stone curlew areas of Breckland SPA</u> The site is within 1,200-1,300 m of a component of Breckland SPA designated for stone curlew and only partially screened from it by existing built development at Herringswell. Information prepared to inform a project level HRA for a proposal covering sites SA9(b) and SA9(c) (23) indicates that portion of the SPA within 1,200-1,300 m of the development site does not function as a potential nesting resource for stone curlew due to residential development within 1,500 m at Herringswell and Red	<u>Effects on stone curlew areas of Breckland SPA</u> While the site is not separated from the relevant component of Breckland SPA by significant physical barriers, the risk of adverse effects on integrity due to cat predation can be ruled out as there is no realistic prospect of the relevant component of the SPA supporting stone curlew, as detailed in the 'presence and light pollution from buildings' column. Conclusion: The allocation will not result in cat predation effects alone or	<u>Effects on stone curlew areas of Breckland SPA</u> While noise from the allocated development site could be perceptible at the relevant component of Breckland SPA, the risk of adverse effects on integrity due to noise pollution can be ruled out as there is no realistic prospect of the relevant component of the SPA supporting stone curlew, as detailed in the 'presence and light pollution from buildings' column. Conclusion: The allocation will not result in noise pollution effects alone or in combination. <u>Effects on functionally linked stone curlew nesting</u>	Adverse effects on the integrity of Breckland SPA can be ruled out, both alone and in combination.

Site	Reason potential for adverse effects on integrity identified	Status of any related proposal	Presence of buildings (including light pollution)	Domestic cat predation	Noise pollution	Overall conclusion
			Lodge, recreational disturbance from nearby Public Rights of Way and residential gardens, and enclosure by nearby mature woodland and hedgerows. This conclusion was supported by an absence of any stone curlew nest records in the area concerned. Given the relatively permanent nature of these environmental factors there is no realistic prospect of this part of the SPA supporting stone curlew and therefore adverse effects on integrity due to presence of development and light pollution from buildings can be ruled out. Conclusion: The allocation will not result in presence or light pollution effects alone or in combination. <u>Effects on functionally linked stone curlew nesting attempts areas</u> The south eastern corner of site SA9(b) is within 1,400-1,500 m of a stone curlew nesting attempts grid square to the south east and is not screened from it by existing built development or other permanent features that prevent inter-visibility,	in combination. <u>Effects on functionally linked stone curlew nesting attempts areas</u> The south eastern corner of site SA9(b) is within 1,400-1,500 m of a stone curlew nesting attempts grid square to the south east and not separated from it by significant physical barriers, creating a risk of cat predation effects. However, given the very small scale of development that would be possible within the 0.14 ha corner of the site within 1,500 m of the grid square, these effects are judged to be negligible. Conclusion: The allocation will not result in cat predation effects alone or in combination.	<u>attempts areas</u> The south eastern corner of site SA9(b) is within 1,400-1,500 m of a stone curlew nesting attempts grid square to the south east and noise from the site could be perceptible at the grid square. However, given the very small scale of development that would be possible within the 0.14 ha corner of the site within 1,500 m of the grid square, these effects are judged to be negligible. Conclusion: The allocation will not result in noise pollution effects alone or in combination.	

Site	Reason potential for adverse effects on integrity identified	Status of any related proposal	Presence of buildings (including light pollution)	Domestic cat predation	Noise pollution	Overall conclusion
			creating a risk of visual disturbance and light pollution effects. However, given the very small scale of development that would be possible within the 0.14 ha corner of the site within 1,500 m of the grid square, these effects are judged to be negligible. Conclusion: The allocation will not result in presence or light pollution effects alone or in combination.			
SA9(c) Land east of Red Lodge (south) – 382 units housing	Within 1,500 m of components of Breckland SPA designated for stone curlew (1,100-1,200 m at closest point) and within 1,500 m of a stone curlew nesting attempts grid square to the south east (700-800 m at closest point).	Proposal F/2013/0257/HYB has planning permission and is partially built out.	<u>Effects on stone curlew areas of Breckland SPA</u> Presence and light pollution effects on the component of Breckland SPA within 1,100-1,200 m of site SA9(c) can be ruled out as there is no realistic prospect of the relevant part of the SPA supporting stone curlew, as detailed for site SA9(b) in the 'presence and light pollution from buildings' column. Conclusion: The allocation will not result in presence or light pollution effects alone or in combination. <u>Effects on functionally linked stone curlew nesting attempts areas</u> Site SA9(c) is within 700-	<u>Effects on stone curlew areas of Breckland SPA</u> Cat predation effects on the component of Breckland SPA within 1,100-1,200 m of site SA9(c) can be ruled out as there is no realistic prospect of the relevant part of the SPA supporting stone curlew, as detailed for site SA9(b) in the 'presence and light pollution from buildings' column. Conclusion: The allocation will not result in cat predation effects alone or in combination. <u>Effects on functionally linked stone curlew nesting attempts areas</u> Site SA9(c) is within 700-	<u>Effects on stone curlew areas of Breckland SPA</u> Noise pollution effects on the component of Breckland SPA within 1,100-1,200 m of site SA9(c) can be ruled out as there is no realistic prospect of the relevant part of the SPA supporting stone curlew, as detailed for site SA9(b) in the 'presence and light pollution from buildings' column. Conclusion: The allocation will not result in noise pollution effects alone or in combination. <u>Effects on functionally linked stone curlew nesting attempts areas</u> Site SA9(c) is within 700-800 m of a stone curlew nesting attempts grid square to the south east and noise from the	Adverse effects on the integrity of Breckland SPA can be ruled out, both alone and in combination.

Site	Reason potential for adverse effects on integrity identified	Status of any related proposal	Presence of buildings (including light pollution)	Domestic cat predation	Noise pollution	Overall conclusion
			800 m of a stone curlew nesting attempts grid square to the south east and is not screened from it by existing built development or other permanent features that prevent inter-visibility, creating a risk of visual disturbance and light pollution effects As part of the project level HRA process an assessment of the effects of development on stone curlews was undertaken and measures to mitigate those effects agreed with Natural England A parcel of semi-natural grassland adjacent to an area of arable land in the SPA has been provided and is being managed in a condition suitable for use by stone curlews for foraging, and nesting (either on the site or within the farmland immediately adjacent). The delivery and continued management of this land in a suitable prescribed condition in perpetuity is secured by a section 106 legal agreement. The provision of these measures was completed in spring 2016, prior to the first occupation at the site.	800 m of a stone curlew nesting attempts grid square to the south east and is not separated from it by significant physical barriers, creating a risk of cat predation effects. However it is noted that this risk will be reduced to some extent as the site is separated from the recorded stone curlew nesting attempts by farmland, parkland, woodland and the Kennett Road. To avoid the potential for adverse effects on integrity of Breckland SPA due to urban edge effects on functionally linked stone curlew habitat, mitigation has been provided as detailed under 'presence and light pollution from buildings. Conclusion: The allocation will not result in cat predation effects alone or in combination.	site could be perceptible at the grid square. To avoid the potential for adverse effects on integrity of Breckland SPA due to urban edge effects on functionally linked stone curlew habitat, mitigation has been provided as detailed under 'presence and light pollution from buildings. Conclusion: The allocation will not result in noise pollution effects alone or in combination.	

Site	Reason potential for adverse effects on integrity identified	Status of any related proposal	Presence of buildings (including light pollution)	Domestic cat predation	Noise pollution	Overall conclusion
			Evidence of the likely effectiveness of the mitigation land is provided by research showing that stone curlew nest densities on arable land are higher near to some semi-natural grassland (17). To provide further assurance, monitoring of the mitigation land is in place (also secured by a section 106 agreement) with a commitment that the results of the surveys will inform any necessary amendments to on-going management or alternative/additional mitigation measures. Should the mitigation land be unsuccessful in supporting stone curlew, alternative/ additional measures will be required in the form of nest plots. Natural England has evidence (seen in draft form by LUC and FHDC) that this type of intervention, which has been widely used in Higher Level Stewardship schemes, has been successful in supporting stone curlew nesting in the Brecks. Generic protection is also provided by policies CS2 and DM10, as outlined			

Site	Reason potential for adverse effects on integrity identified	Status of any related proposal	Presence of buildings (including light pollution)	Domestic cat predation	Noise pollution	Overall conclusion
			earlier in this section. Conclusion: The allocation will not result in presence or light pollution effects alone or in combination.			
SA10(a) Land north of Acorn Way – 300 units housing	A small area in the south east of the site is within 1,500 m of components of Breckland SPA designated for stone curlew (1,400-1,500 m at closest point)	Development was proposed on part of the site (DC/16/2364/OUT) but this has been withdrawn	Whilst the site is not screened from the SPA, the risk of presence of buildings (including light pollution) effects is very small because the area of the site within the SPA 1,500 m constraint zone for stone curlew is only approximately 0.2 ha in size. In addition, the nearest part of the SPA (to the south east of the site allocation) was examined as part of the project level HRA for Land east of Red Lodge (north and south), and found to be sub-optimal for stone curlew given the existing environmental factors. Finally, any small residual risk can be avoided via the allocation policy's requirement that *"The masterplan and any future planning applications will require a project level Habitats Regulations Assessment."* Generic protection is also provided by policies CS2	Whilst the site is not separated from the SPA by significant physical barriers, the risk of significant cat predation effects is very small because the area of the site within the SPA 1,500 m constraint zone for stone curlew is only approximately 0.2 ha in size. In addition, the nearest part of the SPA (to the south east of the site allocation) was assessed as part of the project level HRA for Land east of Red Lodge (north and south), and found to be sub-optimal for stone curlew given the existing environmental factors. Finally, any small residual risk can be avoided via the allocation policy's requirement that *"The masterplan and any future planning applications will require a project level Habitats Regulations Assessment."* Generic protection is also	The risk of significant noise pollution effects is very small because the area of the site within the SPA 1,500 m constraint zone for stone curlew is only approximately 0.2 ha in size. In addition, the nearest part of the SPA (to the south east of the site allocation) was assessed as part of the project level HRA for Land east of Red Lodge (north and south), and found to be sub-optimal for stone curlew given the existing environmental factors. Finally, any small residual risk can be avoided via the allocation policy's requirement that *"The masterplan and any future planning applications will require a project level Habitats Regulations Assessment."* Generic protection is also provided by policies CS2 and DM10, as outlined earlier in this section. Conclusion: The allocation will not result in noise pollution effects alone or in	Adverse effects on the integrity of Breckland SPA can be ruled out, both alone and in combination.

Site	Reason potential for adverse effects on integrity identified	Status of any related proposal	Presence of buildings (including light pollution)	Domestic cat predation	Noise pollution	Overall conclusion
			and DM10, as outlined earlier in this section. Conclusion: The allocation will not result in presence of buildings (including light pollution) effects alone or in combination.	provided by policies CS2 and DM10, as outlined earlier in this section. Conclusion: The allocation will not result in cat predation effects alone or in combination.	combination.	
Kentford						
SA13(a) Land to the rear of The Kentford – 34 units housing	Within 1,500 m of components of Breckland SPA designated for stone curlew (1,200-1,300 m at closest point) and within 1,500 m of a stone curlew nesting attempts grid square to the north east (1,200-1,300 m at closest point)	Planning permission granted DC/14/2203/OUT	<u>Effects on stone curlew areas of Breckland SPA</u> The site is on the opposite side of the existing built up area of Kentford from the stone curlew components of Breckland SPA within 1,200-1,300 m and therefore will not increase the perception of surrounding built development. Conclusion: The allocation will not result in presence of buildings (including light pollution) effects alone or in combination. <u>Effects on functionally linked stone curlew nesting attempts areas</u> The site is on the opposite side of the existing built up area of Kentford from the stone curlew nesting attempts grid square within 1,200-1,300 m and therefore will not increase	<u>Effects on stone curlew areas of Breckland SPA</u> Domestic cats travelling from the site to the stone curlew components of Breckland SPA within 1,200-1,300 m would have to cross the B1506, A14 dual carriageway and the Newmarket to Bury St Edmunds railway line therefore the risk of cat predation effects is judged to be negligible. Conclusion: The allocation will not result in cat predation effects alone or in combination. <u>Effects on functionally linked stone curlew nesting attempts areas</u> Domestic cats travelling from the site to the stone curlew nesting attempts grid square within 1,200-1,300 m would have to cross the B1506, A14 dual	<u>Effects on stone curlew areas of Breckland SPA</u> The amount of noise generated by this development is unlikely to be perceptible at the stone curlew components of Breckland SPA within 1,200-1,300 m above the noise generated by the intervening existing buildings of Kentford, the B1506, the A14 dual carriageway, and the Newmarket to Bury St Edmunds railway line. Conclusion: The allocation will not result in noise pollution effects alone or in combination. <u>Effects on functionally linked stone curlew nesting attempts areas</u> The amount of noise generated by this development is unlikely to be perceptible at the stone curlew nesting attempts grid square within 1,200-1,300 m above the	Adverse effects on the integrity of Breckland SPA can be ruled out, both alone and in combination.

Site	Reason potential for adverse effects on integrity identified	Status of any related proposal	Presence of buildings (including light pollution)	Domestic cat predation	Noise pollution	Overall conclusion
			the perception of surrounding built development. Conclusion: The allocation will not result in presence of buildings (including light pollution) effects alone or in combination.	carriageway and the Newmarket to Bury St Edmunds railway line therefore the risk of cat predation effects is judged to be negligible. Conclusion: The allocation will not result in cat predation effects alone or in combination.	noise generated by the intervening existing buildings of Kentford, the B1506, the A14 dual carriageway, and the Newmarket to Bury St Edmunds railway line. Conclusion: The allocation will not result in noise pollution effects alone or in combination.	
SA13(b) Land at Meddler Stud – 63 units housing and racehorse training establishment	Most of site is within the 1,500 m of components of Breckland SPA designated for stone curlew (1,300-1,400 m at closest point) and within 1,500 m of a stone curlew nesting attempts grid square to the north east (1,200-1,300 m at closest point)	Proposal DC/14/0585/OUT allowed at appeal	<u>Effects on stone curlew areas of Breckland SPA</u> The site is on the opposite side of the existing built up area of Kentford from the stone curlew components of Breckland SPA within 1,300-1,400 m and therefore will not increase the perception of surrounding built development. Conclusion: The allocation will not result in presence of buildings (including light pollution) effects alone or in combination. <u>Effects on functionally linked stone curlew nesting attempts areas</u> The site is on the opposite side of the existing built up area of Kentford from the stone curlew nesting attempts grid square within 1,200-1,300 m and therefore will not increase	<u>Effects on stone curlew areas of Breckland SPA</u> Domestic cats travelling from the site to the stone curlew components of Breckland SPA within 1,300-1,400 m would have to cross the B1506, A14 dual carriageway and the Newmarket to Bury St Edmunds railway line therefore the risk of cat predation effects is judged to be negligible. Conclusion: The allocation will not result in cat predation effects alone or in combination. <u>Effects on functionally linked stone curlew nesting attempts areas</u> Domestic cats travelling from the site to the stone curlew nesting attempts grid square within 1,200-1,300 m would have to cross the B1506, A14 dual	<u>Effects on stone curlew areas of Breckland SPA</u> The amount of noise generated by this development is unlikely to be perceptible at the stone curlew components of Breckland SPA within 1,300-1,400 m above the noise generated by the intervening existing buildings of Kentford, the B1506, the A14 dual carriageway, and the Newmarket to Bury St Edmunds railway line. Conclusion: The allocation will not result in noise pollution effects alone or in combination. <u>Effects on functionally linked stone curlew nesting attempts areas</u> The amount of noise generated by this development is unlikely to be perceptible at the stone curlew nesting attempts grid square within 1,200-1,300 m above the	Adverse effects on the integrity of Breckland SPA can be ruled out, both alone and in combination.

Site	Reason potential for adverse effects on integrity identified	Status of any related proposal	Presence of buildings (including light pollution)	Domestic cat predation	Noise pollution	Overall conclusion
			the perception of surrounding built development. Conclusion: The allocation will not result in presence of buildings (including light pollution) effects alone or in combination.	carriageway and the Newmarket to Bury St Edmunds railway line therefore the risk of cat predation effects is judged to be negligible. Conclusion: The allocation will not result in cat predation effects alone or in combination.	noise generated by the intervening existing buildings of Kentford, the B1506, the A14 dual carriageway, and the Newmarket to Bury St Edmunds railway line. Conclusion: The allocation will not result in noise pollution effects alone or in combination.	

Disturbance from construction or operation of roads

Potential effects of development

5.53 The development provided for by the SALP 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 presence of roads and traffic.

5.54 Potential effects of increased road traffic on air quality are dealt with in a separate section below.

European sites potentially affected

5.55 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.

5.56 The European site potentially affected is:

- Breckland SPA.

Context

5.57 The potential for direct damage from road construction is adequately considered elsewhere via HRA of the Suffolk Local Transport Plan (for major schemes provided for by that plan); via the assessment in this document of the potential for site allocations to result in direct loss or physical damage due to construction (for road development within allocated development site boundaries); or via project level HRA as required (for any other road development).

5.58 Potential disturbance effects from construction or operation of roads are 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 will require consideration of the broad distribution of development across the area. It was judged inappropriate to the level of detail of the SALP 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 (see separate HRA report) and of individual site allocations of the SALP.

5.59 **The assessment in relation to disturbance from construction or operation of roads is presented in the HRA of the SIR. This concluded 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.**

Recreation pressure

Potential effects of development

5.60 Housing development provided for by the SALP 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:

- *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.

- *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

5.61 Based on the information 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:

- *Fenland SAC* – no significant vulnerability to recreation pressure, based on designated features plus pressures and threats described in the Site Improvement Plan.
- *Wicken Fen Ramsar site* – no significant vulnerability to recreation pressure, based on designated features plus pressures and threats described in the Site Improvement Plan.
- *Chippenham Fen Ramsar site* – no significant vulnerability to recreation pressure, based on designated features plus pressures and threats described in the Site Improvement Plan.
- *Devil's Dyke SAC* – no significant vulnerability to recreation pressure, based on designated features plus pressures and threats described in the Site Improvement Plan.
- *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 report 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 confirmed that an assumption of cumulative recreation pressure from all housing allocations within 7.5 km is not necessary.
- *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 confirmed 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.
- *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 confirmed that stone curlew are thought to be disturbed by people walking at a distance of 500 m from a nest.

5.62 The HRA therefore considers the potential for recreation pressure on Breckland SPA only.

Context

5.63 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 (24).

5.64 A study of incubating stone curlews on Salisbury Plain (25) 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.

5.65 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 (26) (27) (28) (29).

5.66 Woodlarks have been intensively studied in conifer plantations and heathland habitats in the Dorset Heaths (16). 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 (30) (31), this is not sufficient to compensate for the effect of disturbance and the net effect on the woodlark population is negative (31).

5.67 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 SALP.

5.68 Detailed analysis of recreation pressure on Breckland SPA has been carried out to inform HRA work for the neighbouring Breckland Core Strategy (32). 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 (33). 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 area represents a suitable approach, consistent with the precautionary principle that is required when applying the Habitats Regulations.

5.69 The modelling of visitor growth around Thetford allowed the RSPB[13] 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 location of the two areas to each other and to Breckland SPA.

5.70 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 (32) 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 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.

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

5.71 The HRA also considers the distance over which increases in recreation pressure associated with new housing may be significant. Work in other parts of the country (32), (34) 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 (33) 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.

5.72 A more recent visitor study for Breckland SPA (35) 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.

5.73 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."

5.74 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 (36) from a different data set. By further analysing visitor surveys (33) 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 (35), which measured distances from home postcodes to actual survey locations within the Thetford Forest). The HRA (36) 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."

5.75 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 (37).

5.76 In formal comments on the HRA of the Draft SALP (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 (35).

Assessment

5.77 The Forest Heath area 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 area's settlements would be less than was planned for Thetford (7,743 dwellings during 2007-2031), the Forest Heath area 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.

5.78 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 the integrity of 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.

5.79 Given the general alignment of the two Breckland SPA visitor studies discussed above, the Appropriate Assessment of the SIR and SALP assumed that the potential for adverse effects on integrity could not be initially 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 (38) identifies as having an 'Arable and horticulture' habitat type. Development more than 7.5 km from Breckland SPA is assumed to have no effect.

5.80 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.

5.81 Footprint Ecology's 2010 report (35) 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 km[14]. Bearing in mind that the Appropriate Assessment of sites allocated by the SALP was based on the distance from home to the habitat boundary rather than a point within it, a farmland recreation zone of influence of 1.5 km was assumed to account for 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 (37), 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.

5.82 In summary, adverse effects on integrity due to recreation pressure could occur for housing development:

- 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.

[14] 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

5.83 The resulting recreation pressure zones of influence are shown in Figure 5.2. An assessment of the potential for each of the site allocations in the SALP to contribute to adverse effects on integrity based on these zones of influence is set out in Table 5.5. Development with no housing component was assumed to not give rise to recreation pressure.

Table 5.5 Potential for site allocations to contribute to recreation pressure on Breckland SPA

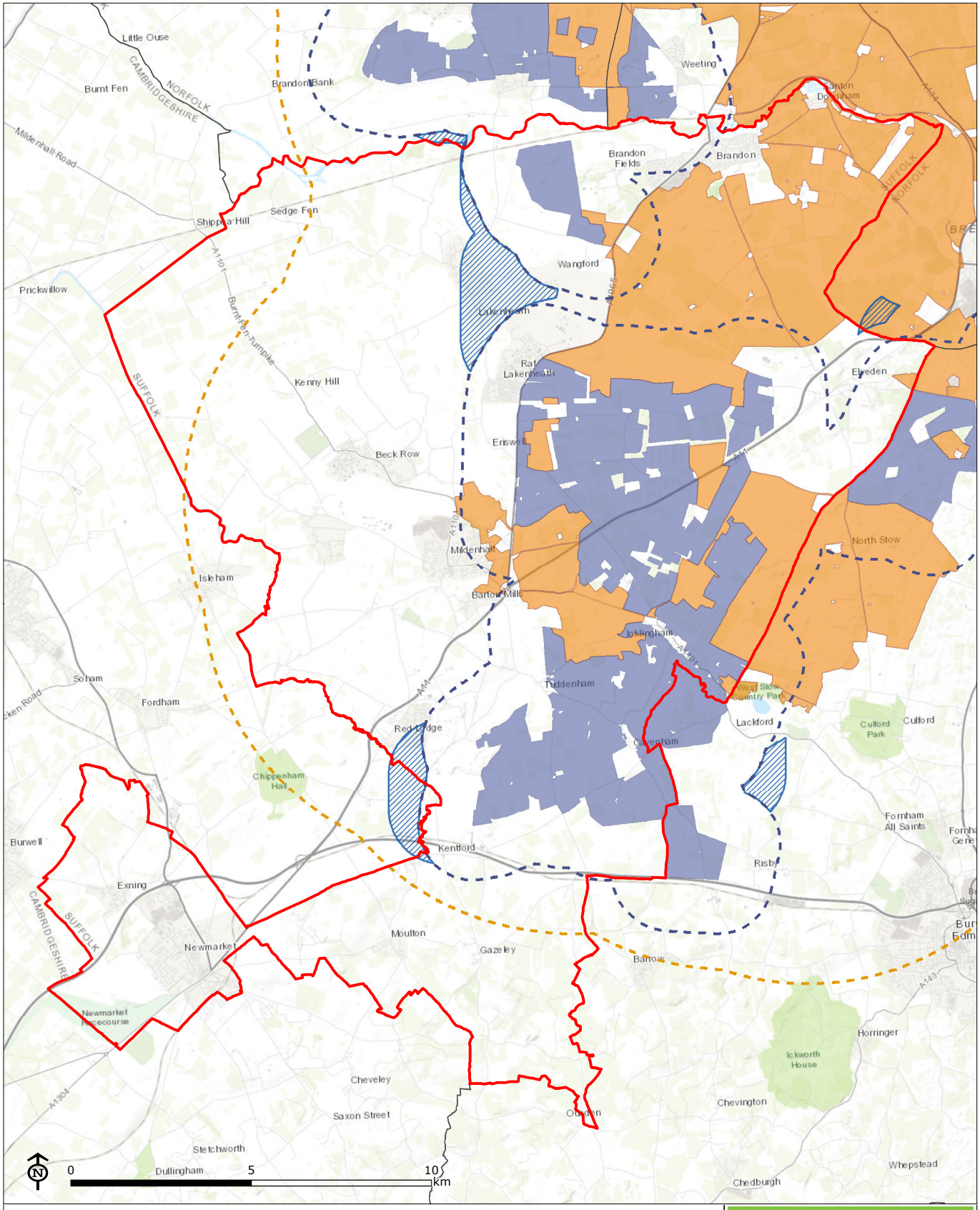
Site and proposed use	Potential of site to contribute to recreation pressure
Housing and mixed use site allocations in the market towns (including allocation for new cemetery)	
BRANDON	
SA2(a) Land at Warren Close Housing	Potential adverse effects on integrity as site is within recreation ZoI of Breckland SPA
SA2(b) Land off Gas House Drove Housing	Potential adverse effects on integrity as site is within recreation ZoI of Breckland SPA
SA3 Brandon Cemetery New cemetery site	Adverse effects on integrity ruled out as allocation has no housing component
MILDENHALL	
SA4(a) Land west of Mildenhall Housing, employment (B1, B2 and B8 use classes), schools, leisure facilities and public services	Potential adverse effects on integrity as site is within recreation ZoI of Breckland SPA
SA5(a) Land at 54 Kingsway Housing	Potential adverse effects on integrity as site is within recreation ZoI of Breckland SPA
SA5(b) District Council Offices, College Heath Road Housing	Potential adverse effects on integrity as site is within recreation ZoI of Breckland SPA
NEWMARKET	
SA6(a) Brickfield Stud, Exning Road Housing	Adverse effects on integrity ruled out as site is not within recreation ZoI of Breckland SPA
SA6(b) Land at Black Bear Lane and Rowley Drive junction Housing, racehorse training yard and paddock	Adverse effects on integrity ruled out as site is not within recreation ZoI of Breckland SPA
SA6(c) Land at Phillips Close and grassland south-west of Leaders Way and Sefton Way Housing	Adverse effects on integrity ruled out as site is not within recreation ZoI of Breckland SPA
SA6(d) Former St Felix Middle School site Housing	Adverse effects on integrity ruled out as site is not within recreation ZoI of Breckland SPA
SA6(e) Land adjacent to Jim Joel Court Housing	Adverse effects on integrity ruled out as site is not within recreation ZoI of Breckland SPA
SA6(f) Land at 146a High Street Housing	Adverse effects on integrity ruled out as site is not within recreation ZoI of Breckland SPA

Site and proposed use	Potential of site to contribute to recreation pressure
SA6(g) Land at Hatchfield Farm Housing, employment (B1, B2 and B8 use classes), school	Adverse effects on integrity ruled out as site is not within recreation ZoI of Breckland SPA
Housing and mixed use allocations in the key service centres	
LAKENHEATH	
SA7(a) Matthews Nursery Housing and retail	Potential adverse effects on integrity as site is within recreation ZoI of Breckland SPA
SA7(b) Land west of Eriswell Road Housing	Potential adverse effects on integrity as site is within recreation ZoI of Breckland SPA
SA8(a) Rabbit Hill Covert, Station Road Housing	Potential adverse effects on integrity as site is within recreation ZoI of Breckland SPA
SA8(b) Land north of Station Road Housing and primary school	Potential adverse effects on integrity as site is within recreation ZoI of Breckland SPA
SA8(c) Land off Briscoe Way Housing	Potential adverse effects on integrity as site is within recreation ZoI of Breckland SPA
RED LODGE	
SA9(a) Land off Turnpike Road and Coopers Yard Housing	Potential adverse effects on integrity as site is within recreation ZoI of Breckland SPA
SA9(b) Land east of Red Lodge (north) Housing	Potential adverse effects on integrity as site is within recreation ZoI of Breckland SPA
SA9(c) Land east of Red Lodge (south) Housing	Potential adverse effects on integrity as site is within recreation ZoI of Breckland SPA
SA9(d) Land west of Newmarket Road and north of Elms Road Housing	Potential adverse effects on integrity as site is within recreation ZoI of Breckland SPA
SA10(a) Land north of Acorn Way Housing, employment (B1, B2 and B8 use classes), and primary school	Potential adverse effects on integrity as site is within recreation ZoI of Breckland SPA
Housing and mixed use allocations in the primary villages	
BECK ROW	
SA11(a) Land adjacent to St Johns Street Housing	Potential adverse effects on integrity as site is within recreation ZoI of Breckland SPA
SA11(b) Land adjacent to and south of the caravan park, Aspal Lane Housing	Potential adverse effects on integrity as site is within recreation ZoI of Breckland SPA
SA11(c) Land east of Aspal Lane Housing	Potential adverse effects on integrity as site is within recreation ZoI of Breckland SPA

Site and proposed use	Potential of site to contribute to recreation pressure
SA11(d) Land adjacent to Beck Lodge Farm Housing	Potential adverse effects on integrity as site is within recreation ZoI of Breckland SPA
EXNING	
SA12(a) Land south of Burwell Road and west of Queens View Housing	Adverse effects on integrity ruled out as site is not within recreation ZoI of Breckland SPA
KENTFORD	
SA13(a) Land to the rear of The Kentford Housing	Potential adverse effects on integrity as site is within recreation ZoI of Breckland SPA
SA13(b) Land at Meddler Stud Housing and racehorse training establishment	Potential adverse effects on integrity as site is within recreation ZoI of Breckland SPA
WEST ROW	
SA14(a) Land east of Beeches Road Housing	Potential adverse effects on integrity as site is within recreation ZoI of Breckland SPA
Site for allocation in the secondary villages	
SA15 Moulton Primary School Expansion of primary school	Adverse effects on integrity ruled out as allocation has no housing component
Employment allocations	
SA17(a) Mildenhall Academy and Dome Leisure Centre site, Mildenhall Employment (B1 use class)	Adverse effects on integrity ruled out as allocation has no housing component
SA17(b) St Leger, Newmarket Employment (B1 and B8 use classes)	Adverse effects on integrity ruled out as allocation has no housing component
Retail allocation	
SA18(a) Former Gas Works, Exning Road, Newmarket Convenience food store (A1 use class)	Adverse effects on integrity ruled out as allocation has no housing component

5.84 The assessment in Table 5.5 indicates that the following housing and mixed use allocations could cause disturbance to species at Breckland SPA:

- Brandon: SA2(a), SA2(b).
- Mildenhall: SA4(a), SA5(a), SA5(b).
- Lakenheath: SA7(a), SA7(b), SA8(a), SA8(b), SA8(c).
- Red Lodge: SA9(a), SA9(b), SA9(c), SA9(d), SA10(a).
- Beck Row: SA11(a), SA11(b), SA11(c), SA11(d).
- Kentford: SA13(a), SA13(b).
- West Row: SA14(a).



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

LUC

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

Potential for in combination effects

5.85 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 is distributed over a wide area rather than being highly concentrated next to new development. 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.

5.86 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.

5.87 These development plans have put in place mitigation to avoid adverse effects on integrity of European sites in relation to recreation pressure effects 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 area's Local Plan documents.

5.88 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 area Core Strategy to contribute to recreation pressure on Breckland SPA. The HRA of the SALP therefore considers the potential effects of the housing provided by the SALP in combination with the development provided by the Core Strategy and SIR.

Existing mitigation that could rule out adverse effects on integrity

5.89 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.

5.90 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.

5.91 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 SALP allocations since a high level assessment, appropriate to the HRA of a Local Plan, is possible at the plan-making stage.

5.92 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 (39)

5.93 Policy CS2: Natural Environment - The policy promotes green infrastructure enhancement and/or provision on all new developments.

5.94 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 (40) which includes the approach to determining when developer contributions can be used to provide off site open space.

Development management policies (41)

5.95 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."

5.96 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."

5.97 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

5.98 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 (42) 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.

5.99 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.

5.100 Drawing on the Council's Supplementary Planning Document (SPD) for Open Space, Sport and Recreation Facilities (40), the Accessible Natural Greenspace Study 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 (43), so this provision standard equates to a total accessible natural greenspace requirement of at least 39 ha. The Accessible Natural Greenspace Study then 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.

5.101 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 the large proportion of the area that is designated for biodiversity means that 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.

5.102 Discussion between the Council and Natural England has highlighted two SSSIs, Maidscross 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 to mitigate recreation pressure.

5.103 The Accessible Natural Greenspace Study also notes that to avoid potential adverse effects on populations of Breckland SPA designated species before they occur, monitoring of visitor levels and activities and of the effectiveness of mitigation measures such as Suitable Accessible Natural Greenspace (SANG) provision is likely to be required.

5.104 Drawing all of this information together, the Accessible Natural Greenspace Study proposes a recreation mitigation strategy, the key principles of which are set out in the 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 Maidscross 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.

5.105 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 gave consideration to these and reflected them in latest (January 2017) version of the study.

Policies within the Site Allocations Local Plan itself

5.106 In discussing the natural environment and biodiversity context, the SALP confirms that:

"the Council will continue to work with Natural England and developers to secure and implement mitigation measures to influence recreation in the region. These will be either onsite or offsite, proportionate to the type, scale, and location of development in the plan such that these measures contribute to the strategy set out in the natural greenspace study".

5.107 Links are also provided in the SALP's allocation policies to the general principles and various specific features of the mitigation and monitoring strategy set out in the Accessible Natural Greenspace Study. These are summarised in Table 5.6 for policies which allocate residential development to settlements falling within the 7.5 km and/or 1.5 km recreation pressure zones of influence for Breckland SPA.

5.108 There is also mitigation within the SALP to address site-specific pressure on farmland areas of Breckland SPA adjacent to the relevant allocated sites. This is also summarised in Table 5.6.

5.109 As well as identifying the recreation pressure mitigation measures required, the allocation policies also require the applicant to submit detailed information in relation to the implementation of these measures, providing assurance that they will be delivered.

Table 5.6 Mitigation of recreation pressure by SALP policies allocating residential development within recreation pressure zones of influence of Breckland SPA

Settlement and SALP policy	Summary of recreation mitigation relevant to the HRA
Brandon – Policy SA2	*"open space must be provided to address the individual site requirements and location"*
Mildenhall – Policy SA4 Land west of Mildenhall	Use of site include *"a 10ha SANGS"* *"All development must provide measures for influencing recreation in the surrounding area, to avoid a damaging increase in visitors to Breckland SPA. An approach developed as part of the masterplan for the site is required so that smaller sites coming forward independently can contribute to this approach. Measures should include the provision of suitable alternative natural greenspace (SANGS) of at least 10ha in size which is well connected and the enhancement and promotion of dog friendly facilities and access routes in the immediate vicinity of the development and/or other agreed measures.* *The developer is required to submit information that clearly demonstrates that the above measures would result in no adverse effects on the integrity of Breckland SPA. This information will include:* • *details of the timetable for implementation of all measures;* • *availability of measures at the time of occupation of the new dwellings – including any phasing plan if applicable;* • *details of adoption and future management of measures (as required);* • *a concept design for the SANGS.* *Planning permission will not be granted unless this information is sufficient to allow the local planning authority (as competent authority) to conclude that the requirements of the Habitats Regulations 2017 (or any replacement regulations) are satisfied."* *"connection to the River Lark corridor and the wider landscape providing a framework of interconnecting green corridors for people and wildlife"* *"A substantial buffer should be retained adjacent to the River Lark to maintain the amenity and allow enhancement of the important blue/green corridor which could be the focus of the SANGS"* *"open space must be provided to address the individual site requirements and location"*
Mildenhall – Policy SA5 Housing allocations in Mildenhall	*"All development must provide measures for influencing recreation in the surrounding area to avoid a damaging increase in visitors to the Breckland SPA. Measures should include the enhancement and promotion of dog friendly access routes in the immediate vicinity of the development and/or other agreed measures* *The developer is required to submit information that clearly demonstrates that the above measures would result in no adverse effects on the integrity of Breckland SPA. This information will include:* • *details of the timetable for implementation of all measures;* • *availability of measures at the time of occupation of the new dwellings – including any phasing plan if applicable;*

Settlement and SALP policy	Summary of recreation mitigation relevant to the HRA
	• *details of adoption and future management of measures (as required).* *Planning permission will not be granted unless this information is sufficient to allow the local planning authority (as competent authority) to conclude that the requirements of the Habitats Regulations 2017 (or any replacement regulations) are satisfied."* *"open space must be provided on all sites to address the individual site requirements and locations"*
Lakenheath - Policy SA7 Housing and mixed use allocations in Lakenheath	*"Any development must provide measures for influencing recreation in the surrounding area, to avoid a damaging increase in visitors to Maidscross Hill SSSI and Breckland SPA. Measures should include the enhancement and promotion of dog friendly access routes in the immediate vicinity of the development and/or other agreed measures.* *The developer is required to submit information that clearly demonstrates that the above measures would result in no adverse effects on the integrity of Breckland SPA. This information will include:* • *details of the timetable for implementation of all measures;* • *availability of measures at the time of occupation of the new dwellings – including any phasing plan if applicable;* • *details of adoption and future management of measures (as required).* *Planning permission will not be granted unless this information is sufficient to allow the local planning authority (as competent authority) to conclude that the requirements of the Habitats Regulations 2017 (or any replacement regulations) are satisfied."* *"open space must be provided to address the individual site requirements and location"* *"substantial buffer next to the Cut Off Channel, providing semi-natural habitat adjacent to the water course, should be provided where possible in relation to current or future applications"*
Lakenheath - Policy SA8 North Lakenheath	*"Any development must provide measures for influencing recreation in the surrounding area, to avoid a damaging increase in visitors to Maidscross Hill SSSI and Breckland SPA. Measures should include the provision of well connected and linked suitable alternative natural greenspace and enhancement and promotion of a dog friendly access route in the immediate vicinity of the development and/or other agreed measures.* *The developer is required to submit information that clearly demonstrates that the above measures would result in no adverse effects on the integrity of Breckland SPA. This information will include:* • *details of the timetable for implementation of all measures;* • *availability of measures at the time of occupation of the new dwellings – including any phasing plan if applicable;* • *details of adoption and future management of measures (as required);* • *a concept design for the SANGS.* *Planning permission will not be granted unless this information is sufficient to allow the local planning authority (as competent authority) to conclude that the requirements of the Habitats Regulations 2017 (or any replacement regulations) are satisfied.* *"open space must be provided on all sites to address the individual site requirements and location"* *"substantial buffer next to the Cut Off Channel, as shown on the Policies Map, providing semi-natural habitat adjacent to the water course should be provided where possible in relation to current or future applications"* *"If any of these sites come forward individually they will need to contribute to a strategic approach to the provision of suitable alternative natural greenspace and*

Settlement and SALP policy	Summary of recreation mitigation relevant to the HRA
	access linking to the wider network across the north of Lakenheath."
Red Lodge - Policy SA9 Housing allocations in Red Lodge	*"Development on all sites must provide measures for influencing recreation in the surrounding area, to avoid a damaging increase in visitors to Breckland SPA. Measures should include the enhancement and promotion of dog friendly access routes in the immediate vicinity of the development(s), and/or other agreed measures. Measures to avoid an increase in recreational activity in adjacent farmland, such as barriers to access, should also be considered for sites SA9 (b) and (c).* *The developer is required to submit information that clearly demonstrates that the measures would result in no adverse effects on the integrity of Breckland SPA. This information will include:* • *details of the timetable for implementation of all measures:* • *availability of measures at the time of occupation of the new dwellings – including any phasing plan if applicable;* • *details of adoption and future management of measures (as required).* *Planning permission will not be granted unless this information is sufficient to allow the local planning authority (as competent authority) to conclude that the requirements of the Habitats Regulations 2017 (or any replacement regulations) are satisfied."* *"open space must be provided to address the individual site requirements and locations;* *"Cycle and pedestrian links should be provided within the sites and where appropriate connections to the existing network"* *"Site (b) Land east of Red Lodge – north; irrespective of the mitigation measures approved in association with site (c), any future proposals or planning application will require a project level HRA."* *"Any future amendments, reserved matters or new planning application to site (c) would require a project level Habitats Regulation Assessment."*
Red Lodge - Policy SA10 North Red Lodge	*"The masterplan and any future planning applications will require a project level Habitats Regulations Assessment. The development must also provide measures for influencing recreation in the surrounding area, to avoid a damaging increase in visitors to Breckland SPA and an increase in recreational activity in adjacent farmland. Measures should include the provision of suitable alternative natural greenspace which is well connected and the enhancement, and promotion of dog friendly access routes in the immediate vicinity of the development, barriers to access and/or other agreed measures.* *The developer is required to submit information that clearly demonstrates that the above measures would result in no adverse effects on the integrity of Breckland SPA. This information will include:* • *details of the timetable for implementation of all measures;* • *availability of measures at the time of occupation of the new dwellings – including any phasing plan if applicable;* • *details of adoption and future management of measures (as required);* • *a concept design for the SANGS.* *Planning permission will not be granted unless this information is sufficient to allow the local planning authority (as competent authority) to conclude that the requirements of the Habitats Regulations 2017 (or any replacement regulations) are satisfied."* *"open space must be provided to address the individual site requirements and location"* *"Cycle and pedestrian links should be created within the site and where appropriate connections to the existing network"*
Beck Row – Policy SA11	*"open space must be provided on all sites to address the individual site requirements and locations"* *"Site (a) must provide good connectivity between the development site and Aspal*

Settlement and SALP policy	Summary of recreation mitigation relevant to the HRA
	Close local nature reserve"
Kentford – Policy SA13	*"recreational open space must be provided to address the individual site requirements and locations"*
West Row - Policy SA14	*"The development must provide measures for influencing recreation in the surrounding area, to avoid a damaging increase in visitors to the Breckland SPA. Measures should include provision of natural greenspace and the enhancement and promotion of a dog friendly access route in the immediate vicinity of the development and/or other agreed measures.* *The developer is required to submit information that clearly demonstrates that the measures would result in no adverse effects on the integrity of Breckland SPA. This information will include:* • *details of the timetable for implementation of all measures:* • *availability of measures at the time of occupation of the new dwellings – including any phasing plan if applicable;* • *details of adoption and future management of measures (as required).* *Planning permission will not be granted unless this information is sufficient to allow the local planning authority (as competent authority) to conclude that the requirements of the Habitats Regulations 2017 (or any replacement regulations) are satisfied"* *"open space must be provided to address the individual site requirements and location"*

5.110 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.

5.111 **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.**

Water quantity

Potential effects of development

5.112 Water abstraction to supply new development provided for by the SALP 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.

European sites potentially affected

5.113 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 (44) (45) (46) carried out a screening assessment for all of the scoped in European sites for potential water quantity effects. The Water Cycle Strategy concluded that the catchments of Breckland SAC and SPA and Chippenham Fen Ramsar site include water resource areas impacted by the proposed development.

Context

5.114 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/Resource Zones on water resources.

5.115 The potential effects of the amount and distribution of growth proposed by the SIR and SALP were assessed by reference to the findings of the Water Cycle Strategy (44) (45) (47) 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.

5.116 The results of that assessment are presented in the HRA of the SIR rather than the HRA of the SALP since the assessment of the SIR broad distribution of housing did not highlight any water quantity effects that required more detailed assessment in relation to any individual site allocation.

5.117 **The assessment in relation to water quantity is presented in the HRA of the SIR. The HRA of the SIR was able to rule out adverse effects on the integrity of any European site in relation to water quantity.**

Water quality

Potential effects of development

5.118 New development provided for by the SALP 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.

5.119 New development could also result in overloading of the combined sewer network during storm events with the potential for contamination of hydrologically connected European sites.

5.120 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

5.121 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 (44) (45) (46) carried out an initial assessment for all of the scoped in European sites for potential water quality effects.

Context

5.122 The potential effects of development proposed by the SIR and SALP on water quality will primarily be a function of the cumulative impact of all the proposed growth in each of the relevant WRC catchments.

5.123 The potential effects of the amount and distribution of growth proposed by the SIR and SALP were assessed by reference to the findings Water Cycle Strategy (44) (45) (47) on whether the growth can be accommodated within existing WRC discharge consents and sewer network capacity.

5.124 The results of that assessment are presented in the HRA of the SIR since the assessment of the SIR broad distribution of housing did not highlight any water quality effects that required more detailed assessment in relation to any individual site allocation

5.125 **The assessment in relation to water quality is presented in the HRA of the SIR. The HRA of the SIR was able to rule out adverse effects on the integrity of any European site in relation to water quality.**

Air quality

Potential effects of development

5.126 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

5.127 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

5.128 Although the Council's Transport Study took account of the allocations proposed by the SALP, its findings on likely changes in road traffic are a function of the cumulative impact on the road network of all of the proposed growth and it was not possible to determine from the study report the impact on traffic of any individual allocation. Potential effects of traffic growth on air quality were therefore most appropriately addressed in the HRA of the amount and broad distribution of housing growth set out in the SIR rather than the HRA of individual allocations in the HRA of the SALP.

5.129 An initial assessment of the potential air quality effects is presented in the HRA of the SIR. This revealed the need for further HRA work in relation to air quality effects and this further assessment and the overall conclusions in relation to air quality effects are presented in a separate report prepared by AECOM (48).

5.130 **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** (49)**. That report concludes that "*no adverse effect on Breckland SAC, SPA or Rex Graham Reserve SAC is expected to occur from growth in Forest Heath District Council alone, or in combination with other projects and plans*".**

6 Conclusions

6.1 The HRA screening of the SALP 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 SALP, either alone or in combination with other 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. **Forest Heath District Council.** *Single Issue Review (SIR) & Site Allocations Local Plan (SALP): Settlement Boundary Review.* 2016.

11. **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.

12. **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.

13. *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.

14. **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.

15. **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.

16. **Mallord, J.W.** *Predicting the consequences of human disturbance, urbanisation and fragmentation for a woodlark population.* Norwich : UEA, 2005.

17. **Clarke, R. and Liley, D.** *Further assessments of the relationship between buildings and stone curlew distribution.* Wareham, Dorset : Footprint Ecology for Breckland Council, 2013.

18. *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.

19. *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.

20. **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.

21. *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.

22. *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.

23. **Aspect Ecology.** *HRA Framework Report: Land East of Red Lodge, Suffolk.* 2013.

24. *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.

25. *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.

26. *Birdconservation and access: coexistence or compromise?* **Langston, R., Drewitt, A. and Liley, D.** 2007, British Wildlife, Vol. 19, pp. 1-9.

27. *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.

28. **Murison, G.** *The impact of human disturbance on the breeding success of nightjar on heathlands in South Dorset.* Peterborough : English Nature, 2002.

29. **Woodfield, E. and Langston, R.H.** *A study of the effects on breeding nightjars of access on foot to heathland.* Peterborough : English Nature, 2004.

30. *Quantifying density dependence in a bird population using human disturbance.* **Mallord, J.W., et al., et al.** 2007, Oecologica, Vol. 153, pp. 49-56.

31. *Linking recerational 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.

32. **Liley, D, Hoskin R, Underhill-Day, J and D, Tyldesley.** *Habitats Regulations Asessment: Breckland Council Submission Core Strategy and Development Control Policies Document.* Wareham, Dorset : Footprint Ecology for Breckland District Council, 2008.

33. **Dolman, P., Lake, I.R. and Bertoncelj, I.** *Visitor flow rate and recreational flow modelling in Breckland.* Norwich : UEA, 2008.

34. **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.

35. **Fearnley, H., Liley, D. and Cruickshanks, K.** *Visitor survey results from Breckland SPA.* Wareham, Dorset : Footprint Ecology, 2010.

36. **Breckland District Council.** *HRA for Site Specific Policies and Proposals DPD.* 2010.

37. **Natural England.** Personal communication with Francesca Shapland, Lead Adviser, Planning & Conservation, Norfolk & Suffolk Team. 11 February 2016.

38. —. Designated Sites View. [Online] no date. [Cited: 14 November 2016.] https://designatedsites.naturalengland.org.uk/.

39. **Forest Heath District Council.** *Core Strategy DPD.* 2010.

40. —. *Supplementary Planning Document for Open Space, Sport and Recreation Facilities.* s.l. : Forest Heath District Council, 2011.

41. **Forest Heath District and St Edmundsbury Borough Councils.** *Forest Heath and St Edmundsbury Local Plan Joint Development Management Polcies Document.* 2015.

42. **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.

43. **Cambridgeshire Research Group.** *Forest Heath Objectively Assessed Housing Need.* 2016.

44. **Arcadis.** *Forest Heath Water Cycle Strategy Update Stage 3 Final Report.* s.l. : Forest Heath District Council, 2016.

45. —. *Stage 3 Forest Heath WCS Update - December 2016 Addendum.* s.l. : Forest Heath District Council, 2016.

46. —. *Forest Heath WCS Update - Addendum April 2018.* 2018.

47. —. *Forest Heath Water Cycle Strategy April 2018 Addendum.* 2018.

48. **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.

49. —. *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.

50. **Liley, Durwyn.** *Stone Curlew Buffers in the Brecks.* s.l. : Footprint Ecology, 2016.

51. **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.

52. **DEFRA.** *The Habitats and Wild Birds Directives in England and its seas: Core guidance for developers, regulators & land/marinen managers (Consultation Document).* 2012.

53. **ODPM.** *Biodiversity and GeologialConservation - Statutory obligations and their impact within the planning system.* Norwich : TSO (The Stationery Office), 2005.

54. **Natural England.** *Draft Guidance: The Habitats Regulations Assessment of Regional Spatial Strategies and Sub-Regional Strategies.* Peterborough : Natural England, 2007.

55. **Day, T.C.F.** *The effects of disturbance from roads on stone curlews in southern England.* Cambridge : Darwin College, University of Cambridge, 2003.

56. *Habitat selection, ranging behaviour and diet of the stone curlew (Burhinus oedicnemus).* **Green, R.E., Tyler, G.A. and Bowdne, C.G.R.** 2000, Journal of Zoology, Vol. 250, pp. 161-183.

57. *Foraging by nightjars Caprimulgus europaeus away from their nesting areas.* **Alexander, I. and Cresswell, B.** 1990, Ibis, Vol. 132, pp. 568-574.

58. *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.

59. *Changes in vegetational diversity on remnant heathland fragments.* **Webb, N.R. and Vermaat, A.H.** 1990, Biological Conservation, Vol. 53, pp. 253-264.

60. *Changes in the heathlands of Dorset, England, between 1978 and 1987.* **Webb, N.R.** 1990, Biological Conservation, Vol. 51, pp. 273-286.

61. **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.

62. **Erritzoe, J.** *Bird traffic casualties and road quality for breeding birds: A summary of existing papers with a bibliography.* 2002.

63. *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.

64. *Linear barriers to arthropod movements in the landscape.* **Mader, H.J., Schell, C. and Kornacker, P.** 1990, Biological Conservation, Vol. 54, pp. 209-222.

65. **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.

66. *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.

67. *The impact of a road upon adjacent heatland vegetation: effects on plant species composition.* **Angold, P.G.** 1997, Journal of Applied Ecology, Vol. 34, pp. 409-417.

68. *Ecological impacts of air pollution from road transport on local vegetation.* **Bignal, K.L., et al., et al.** 2007, Applied Geochemistry, Vol. 22, pp. 1265-1271.

69. *Soil phosporous 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.

70. **Taylor, K., et al., et al.** *Dogs, access and nature conservation. Research Report.* Peterborough : English Nature, 2005.

71. **Liley, D.** *Human impacts on the Castle Bottom to Yateley Common and Hawley Commons SSSI, Hampshire.* s.l. : RSPB, 2004.

72. **Kirby, J.S. and Tantrum, D.A.S.** *Monitoring heathland fires in Dorset: Phase 1 Report to DETR.* Northampton : Terra Environmental Consultancy, 1999.

73. *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.

74. *Do Dorset heaths have a future? Sixth National Heathland Conference.* **Woods, N.I.E.P.o.t.** Sandy, Bedfordshire : RSPB, 2002.

75. **Hyder Consulting.** *Level 1 SFRA and Outline Water Cycle Study.* s.l. : Forest Heath District Council and St Edmundsbury Borough Council, 2009.

76. **Anglian Water Services.** *Water Resources Management Plan - Draft for Consultation.* s.l. : Anglian Water Services, 2008.

77. *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.

78. *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.

79. *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.

80. *Longt 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.

81. *Modellin 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.

82. **Gilbert, O.L.** *Lichen survey of selected Breckland SSSIs: English Nature Reserach Report.* Peterborough : English Nature, 2002.

83. **Department for Transport.** *Design Manual for Roads and Bridges Volume II Environmental Assessment Section 3 Environmental Assessment Techniques HA207/07.* 2007.

84. **Hyder Consulting.** *Forest Heath District Council Water Cycle Study Stage 2: Full Strategy.* Aston : Hyder Consulting for Forest Heath District Council, 2011.

85. —. *Forest Heath District Council Level 2 Strategic Flood Risk Assessment.* Aston : Hyder Consulting for Forest Heath District Council, 2011.

86. **Environment Agency.** *Cam and Ely Ouse Abstraction Licensing Strategy.* Bristol : Environment Agency, 2013.

87. **Anglian Water Services.** *Water Resources Management Plan 2015.* Huntingdon : Anglian Water Services, 2015.

88. **Mott MacDonald.** *Anglian Water 2015 Water Resource Management Plan Habitats Regulations Assessment: Task 1 & 2.* Cambridge : Mott MacDonald, 2013.

89. **Suffolk County Council.** *Suffolk Local Transport Plan 2011-2031.* s.l. : Suffolk County Council, 2011.

90. —. *The Conservation of Habitats anmd Species Regulations 2010 Regulation 61 assessment for Suffolk Local Transport Plan 3.* Ipswich : Suffolk County Council, 2011.

91. **Forest Heath District Council.** *Supplementary Plannning Document for Open Space, Sport and Recreation Facilities.* s.l. : Forest Heath District Council, 2011.

92. **Cambridge Insight.** *Strategic Housing Market Assessment for the Cambridge housing sub-region.* 2013.

93. **David Tyldesley Associates.** *Habitats Regulations Appraisal of Plans: Guidance for plan-making bodies in Scotland.* s.l. : Scottish Natural Heritage, 2015.

94. **Hyder Consulting.** *Red Lodge Wastewater Treatment/Sewerage Capacity Study: Independent study report.* s.l. : Forest Heath District Council, 2014.

95. **Natural England.** *Analysis of Accessible Natural Greenspace Provision for Suffolk.* 2010.

96. **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.

97. **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.

98. **Breckland District Council.** *HRA for Site Specific Policies and Proposals DPD.* 2010.

99. **Natural England and partners.** *Atmospheric nitrogen theme plan: Developing a strategic approach for England's Natura 2000 sites.* s.l. : Natural England, 2015.

100. **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.

101. **Environment Agency.** *Anglian river basin district river basin management plan.* s.l. : Defra, 2015.

102. **Mouchel.** *A11 Improvement Options.* s.l. : Unpublished report for Suffolk County Council, 2016.

103. *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.

104. *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.

105. **AECOM Infrastructure & Environment UK Ltd.** *Forest Heath District Council Site Allocation Plan Cumulative Impact Study - Addendum.* s.l. : Forest Heath District Council, 2016.

106. —. *Forest Heath District Council Site Allocation Plan Cumulative Impact Study.* s.l. : Forest Heath District Council, 2016.

107. **Arcadis.** *Forest Heath WCS Update - Addendum March 2018.* 2018.

108. **Environment Agency.** *Cam and Ely Ouse Abstraction Licensing Strategy.* Bristol : Environment Agency, 2017.

109. **AECOM.** *Forest Heath District Council Site Allocation Plan Cumulative Impact Study - Addendum.* s.l. : Forest Heath District Council, 2018.

110. **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

Breckland Site Specific Policies and Proposals

Wood and the Breckland SPA.

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 2017[15] 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 for15,950 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

[15] Breckland Council (August 2017) https://www.breckland.gov.uk/article/7343/Evidence-Base-Submission-Documents-

Cambridgeshire and Peterborough Minerals and Waste Core Strategy

Mineral Safeguarding Areas and Mineral Consultation Areas Vision

- 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,

Cambridgeshire and Peterborough Minerals and Waste Core Strategy

through the designation of Waste Consultation Areas

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 area, 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 area Core Strategy

Status

Adopted by FHDC in 2010.

Policy CS 7 of the adopted Forest Heath area 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 hard and their restoration, enhancement and expansion will be encourages 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

King's Lynn and West Norfolk Core Strategy

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 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:

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

St Edmundsbury Core Strategy

b) 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 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 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 District 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;

Suffolk Minerals Core Strategy DPD

- 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 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 completing development. 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 projects[16]

A14 Cambridge to Huntingdon Improvement Scheme
Status A development consent order was granted to Highways England for the A14 Cambridge to Huntingdon Improvement

[16] National Infrastructure Planning website https://infrastructure.planninginspectorate.gov.uk/

A14 Cambridge to Huntingdon Improvement Scheme

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 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

Palm Paper 3 CCGT Power station Kings Lynn
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 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	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. Conclusion: There is no potential for minor effects that could act in combination with the SIR and SALP.
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	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

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
			and food court; and replacement of existing oil and water separator		carried out by the Council (dated 22/3/2018) identifies that 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). 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.
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**	Yes – site is within the 1,500 m stone curlew constraint zone	Current planning application is supported by an ES and additional supporting HRA

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
			dwellings (ii) Primary School (iii) Retail unit (iv) Associated open and play space, allotments, landscaping and infrastructure works		information but the HRA has not yet been completed. Mitigation is 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. 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.
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)	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. The proposed scheme provides extensive green infrastructure

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
					(11 ha equal to 25% of site area) linked into the local footpath 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. 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. 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.
N/A	DC/19/0472	Sunnica East Solar Farm, Green Lane, between Freckenham and Worlington, Suffolk; Sunnica West Solar Farm in East Cambridgeshire District and associated cable	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	No	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

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
		connections	west in East Cambridgeshire District (and forms part of the same application) will also be provided.		HRA. Conclusion: Once prepared, the 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).	**Current pressures** Lack of ground disturbance, under-grazing and inappropriate scrub and weed control. Planning permission: general – development, especially for housing, roads and solar farms. **Potential future threats** Inappropriate forestry and woodland management. Stone curlew monitoring and intervention – vulnerability of nests and chicks to farming operations. Air pollution: impact of atmospheric nitrogen deposition. Public access / disturbance – does not appear to be currently significantly affecting bird populations but impacts of increased recreational activities uncertain. Climate change. Inappropriate pest control – predation on ground-nesting SPA birds. **Natural England: supplementary advice on conserving and restoring site features**	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring: • The extent and distribution of the habitats of the qualifying features; • The structure and function of the habitats of the qualifying features; • The supporting processes on which the habitats of the qualifying features rely • The population of each of the qualifying features; and • The distribution of the qualifying features within the site.	In general, the three qualifying species all rely on: • 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. The individual qualifying species of the SPA also rely on the following habitats and species: Stone Curlew • 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 site[17].	None.

[17] 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
		In addition to the above, the supplementary advice expands on the European site's vulnerabilities as follows: • 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,		• Diet – Invertebrates that are found on the ground, including earthworms, ground and dung beetles. Woodlark • 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. Nightjar • 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
		abundance and availability of prey and therefore impact qualifying bird populations. • 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 *Corynephorus* and *Agrostis* grasslands; natural eutrophic lakes with *Magnopotamion* or *Hydrocharition*-type vegetation; European dry heaths; semi-natural dry grasslands and scrubland facies on	**Current pressures** Lack of ground disturbance, under grazing, inappropriate scrub and weed control, inappropriate cutting/mowing. Water pollution: There has been a considerable loss of aquatic species in Ringmere and high nutrient levels	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring; • The extent and distribution of qualifying	In general, qualifying habitats of the SAC rely on: • 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 *Corynephorus* and *Agrostis* 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
	calcareous substrates; alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior*. Annex II species: Great Crested Newts *Triturus cristatus*.	recorded in previous water analysis suggest nutrients are impacting the mere. Langmere too shows signs of nutrient enrichment. Changes in species distributions. **Potential future threats** Air pollution: impact of atmospheric nitrogen deposition. Public access / disturbance – SAC features may be affected through eutrophication (dog fouling, unauthorised fires) and disturbance of soils. Climate change. Habitat fragmentation. **Natural England: supplementary advice on conserving and restoring site features** In addition to the above, the supplementary advice expands on the European site's vulnerabilities as follows: Habitats • 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	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.	wider landscape to allow for migration, dispersal and genetic exchange of species typical of this habitat. • Active and ongoing conservation management to protect, maintain or restore these habitats. More specific information has been provided for each qualifying habitat as follows: Inland dunes with open *Corynephorus* and *Agrostis* grasslands • 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 *Corynephorus canescens*. This species is a key feature of this habitat type. European dry heaths and semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) • 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	total extent is estimate to be less than 1,000 hectares.

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
		composition, and may undermine its resilience to adapt to future environmental changes. • 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.		ground/sparse vegetation, which are characteristic of these habitats. • Insects, including bees for pollination of flowering plants. Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*) • Light grazing and browsing from herbivores, such as deer to promote diverse woodland structure and continuous seedling establishment. Natural eutrophic lakes with *Magnopotamion* or *Hydrocharition* – type vegetation • Hydrological isolation and connectivity. • Natural hydrological processes to provide the conditions necessary to sustain this habitat. 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). • 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
		• Increase impacts from light pollution may impact growth of trees and plants, as well as affect behaviour of species associated with each habitat type. Great Crested Newts • 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.		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.	
Rex Graham Reserve SAC This is a disused chalk pit with developing dry grassland characterised by false oat-grass *Arrhenatherum elatius*. The site has been selected as it supports the largest population of military orchid *Orchis militaris* in the UK, comprising more than 95% of the current total	Annex I habitats: Semi-natural dry grasslands and scrubland facies on calcareous substrates (important orchid sites)	**Current pressures** Changes in species distributions. **Potential future threats** Air pollution: risk of atmospheric nitrogen deposition – exceeds site-relevant critical load with risk of harmful effects. Habitat fragmentation. Deer. Invasive species. Public access / disturbance –	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring; • The extent and distribution of qualifying natural habitats; • The structure and function (including typical species) of qualifying natural habitats; and • The supporting processes	The qualifying habitat of the SAC relies on: • 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, *Orchis militaris*. • The woodland in the north of the SAC acts as a buffer in relation to the road.	Managed by Suffolk Wildlife 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
population.		ongoing threat to site features from illegal plant collection. **Natural England: supplementary advice on conserving and restoring site features** In addition to the above, the supplementary advice expands on the European site's vulnerabilities as follows: • 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.	• 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
		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. • Changes in land-use on off-site habitats may affect the structure and function of the SAC.			
Devil's Dyke SAC (on FH boundary, part in FH and part in East Cambridgeshire DC) Devil's Dyke consists of a mosaic of CG3 *Bromus erectus* and CG5 *Bromus erectus – Brachypodium pinnatum* calcareous grasslands. It is the only known UK semi-natural dry grassland site for lizard orchid *Himantoglossum hircinum*.	Annex I habitats: Semi-natural dry grasslands and scrubland facies on calcareous substrates (important orchid sites)	**Current pressures** Inappropriate scrub control **Potential future threats** Air pollution: impact of atmospheric nitrogen deposition. **Natural England: supplementary advice on conserving and restoring site features** In addition to the above, the supplementary advice expands on the European site's vulnerabilities as follows: • 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	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring: • The extent and distribution of qualifying natural habitats; • The structure and function (including typical species) of qualifying natural habitats; and • The supporting processes on which qualifying natural habitats rely.	The SAC's qualifying habitat relies on: • 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, *Himantoglossum hircinum*. • 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
		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. • 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.		or restore this habitat.	
Fenland SAC (outside FH) The Fenland SAC is comprised of three fenland Sites of Special Scientific Interest: Woodwalton Fen, Wicken Fen and Chippenham Fen. Each site generally consists of standing water bodies, ditch systems, bogs, marshes and broad-leaved woodland carr.	Annex I habitats: Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) Annex II species: Spined Loach (*Cobitis taenia*), Great Crested Newt (*Triturus cristatus*)	**Current pressures** Water pollution – nutrient enrichment of Chippenham Fen component, fed from a mixture of groundwater, rainfall and surface runoff. Hydrological changes related to public water supply abstraction. Air pollution: impact of atmospheric nitrogen deposition **Potential future threats**	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring; • The extent and distribution of qualifying natural habitats and habitats of qualifying species; • The structure and function (including typical species) of qualifying	In general, qualifying habitats of the SAC rely on: • 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	National Trust undertaking remedial land management work.

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
		None identified. **Natural England: supplementary advice on conserving and restoring site features** In addition to the above, the supplementary advice expands on the European site's vulnerabilities as follows: • 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.	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.	conservation management is needed to protect, maintain or restore this habitat. For each habitat, more specific examples have been provided. *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*); Purple moor-grass meadows • Upwellings and springs from the aquifer provide water to the site. • Natural hydrological processes to provide the conditions necessary to sustain this habitat. Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae*; Calcium-rich fen dominated by great fen sedge (saw sedge) • Upwellings and springs from the aquifer provide water to the site. • Natural hydrological processes to provide the conditions necessary to sustain this habitat. 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). • 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
		• 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.		important for the viability of these species populations. Spined loach • 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.	
Ouse Washes SAC, SPA and Ramsar site (outside FH) 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	SAC qualifying species Annex II: Spined loach *Cobitis taenia* SPA qualifying species Article 4.1, Annex 1 species (breeding season): Ruff *Philomachus pugnax;* Spotted Crake *Porzana porzana*	**Current pressures** Inappropriate water levels – interest features are being adversely affected by increased flooding. **Potential future threats** Water pollution.	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 (SAC), or - the aims of the Wild Birds Directive (SPA) …by maintaining or restoring:	In general, the qualifying species of the SAC, SPA and 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). • Habitat connectivity is important for the viability of	Long term tidal strategy - regular problems summer flooding- severe siltation of Great Ouse River. Discharges into River Lark, River Little Ouse (and various other smaller watercourses in Forest Heath area) could drain

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.	Annex I species (over winter): Bewick's Swan *Cygnus columbianus bewickii*; Hen Harrier *Circus cyaneus*; Ruff *Philomachus pugnax*; Whooper Swan *Cygnus cygnus,* Article 4.2 (migratory species – breeding season): Black-tailed Godwit *Limosa limosa limosa*; Gadwall *Anas strepera*; Shoveler *Anas clypeata* Article 4.2 (migratory species – over winter): Black-tailed Godwit *Limosa limosa islandica;* Gadwall *Anas strepera;* Pintail *Anas acuta;* Pochard *Aythya farina;* Shoveler *Anas clypeata;* Wigeon *Anas Penelope* Article 4.2 Assemblage qualification: regularly supports at least 20,000 waterfowl <u>Ramsar criteria</u> 1. Extensive area of seasonally-flooding washland 2. Nationally scarce aquatic plants, relict invertebrates, assemblage of nationally rare breeding		• 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.	this species population. Spined loach • 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. In general, the qualifying bird species of the SAC, SPA and Ramsar rely on: • The sites ecosystem as a whole (see list of habitats below). • Maintenance of populations of species that they feed on (see list of diets below). • Off-site habitat, which provide foraging habitat for these species. • Open landscape with unobstructed line of sight within nesting, foraging or roosting habitat. Ruff • Habitat preferences – grassy tundra, lakes, farmland, on migration mudflat. • Diet – invertebrates, especially insects, some plant material Spotted Crake • Habitat preferences –	into 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
	waterfowl. 5. Bird assemblages of international importance. 6. Water birds for potential future consideration			swamps and marsh. • Diet – small aquatic invertebrates, parts of aquatic plants. Bewick's Swan • Habitat preferences – lakes, ponds and rivers, also estuaries on migration. • Diet – plant material in water and flooded pasture. Hen Harrier • Habitat preferences – moor, marsh, steppe and fields. • Diet – mostly, small birds, nestlings and small rodents. Whooper Swan • Habitat preferences – lakes, marshes & rivers. • Diet – aquatic vegetation also grazes on land. Black-tailed Godwit • Habitat preferences – marshy grassland and steppe, on migration mudflats. • Diet – invertebrates, some plant material. Gadwall • Habitat preferences – marshes, lakes, on migration also rivers, estuaries. • Diet – Leaves, shoots. Pintail • 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
				rivers and marsh. • Diet – omnivorous, feeds on mud bottom at depths of 10-30cm. Pochard • Habitat preferences – lakes and slow rivers on migration also estuaries. • Diet – mostly plant material, also small animals. Shoveler • Habitat preferences – shallow lakes, marsh, reedbed and wet meadow. • Diet – omnivorous, especially small insects, crustaceans, molluscs and seeds. Wigeon • 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	Ramsar criteria 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 *Dolomedes*	**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: • 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 *Dolomedes plantarius*.	*plantarius*. 3. The site supports many rare and scarce invertebrates, including a population of the fen raft spider *Dolomedes plantarius*. 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 *Sterna hirundo*; Little Tern *Sterna albifrons*; Marsh Harrier *Circus aeruginosus*	**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
The Wash comprises very extensive saltmarshes, major intertidal banks of sand and mud, shallow waters and deep channels. 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.	Article 4.1, Annex 1 species (over winter): Avocet *Recurvirostra avosetta*; Bar-tailed Godwit *Limosa lapponica*; Golden Plover *Pluvialis apricaria*, Whooper Swan *Cygnus cygnus* Article 4.2 (migratory): Ringed Plover Charadrius hiaticula; Sanderling Calidris alba; Black-tailed Godwit *Limosa limosa islandica*; Curlew *Numenius arquata*; Dark-bellied Brent Goose *Branta bernicla bernicla*; Dunlin *Calidris alpina alpine*; Grey Plover *Pluvialis squatarola*; Knot *Calidris canutus*; Oystercatcher *Haematopus ostralegus*; Pink-footed Goose *Anser brachyrhynchus*; Pintail *Anas acuta*; Redshank *Tringa tetanus*; Shelduck *Tadorna tadorna*; Turnstone *Arenaria interpres* Article 4.2 Assemblage qualification: regularly supports at least 20,000 waterfowl	**Potential future water threats** Public access/Disturbance – ongoing threat to site from recreational activities and low flying aircraft. Fisheries: Recreational marine and estuarine - potential to impact on fish stocks as a resource for designated birds. Inappropriate coastal management. Fisheries: Commercial and marine estuaries - risk to site features due to uncertainty of current management. Predation. Coastal squeeze.	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.	provide foraging habitat for these species. • Open landscape with unobstructed line of sight within nesting, foraging or roosting habitat. Common Tern • Habitat preferences – sandy seacoasts, in winter marshes, estuaries. • Diet – mostly fish, also crustaceans. Little Tern • Habitat preference – seacoasts, rivers and lakes. • Diet – small fish and invertebrates. Marsh Harrier • Habitat preference – marsh and reedbeds. • Diet – small birds and mammals Avocet • Habitat preference – mudflats, lagoons, sandy beaches. • Diet – invertebrates, especially insects, crustaceans, worms and small fish. Bar-tailed Godwit • 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
				• Diet – invertebrates, especially insects, molluscs, crustaceans and worms. Golden Plover • Habitat preference - wet moor, on migration pasture and estuaries. • Diet – invertebrates, especially beetles and earthworms. Whooper Swan • Habitat preference – lakes, marshes and rivers. • Diet - aquatic vegetation, also grazes on land. Ringed Plover • 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. Sanderling • Habitat preference – coastal habitats. • Diet - small invertebrates. Black-tailed Godwit • 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
				Curlew • Habitat preference – marsh, grassland, on migration mudflats. • Diet – invertebrates, including earthworms, leatherjackets, beetles, spiders and caterpillar. Dark-bellied Brent Goose • Habitat preference – on migration marshes and estuaries. • Diet – eelgrass (*Zostera*), also vegetation by grazing on land or shallow water. Dunlin • Habitat preference – moor, heath, on migration estuaries and coasts. • Diet – invertebrates. Grey Plover • Habitat preference – on migration pasture & estuaries. • Diet – invertebrates during the summer; and primarily marine worms, crustaceans and molluscs during the winter. Knot • 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
				especially molluscs during the winter. Oystercatcher • Habitat preference – sandy, muddy, rocky beaches. • Diet – bivalves especially cockles, mussels, *Tellins macoma* and earthworms. Pink-footed Goose • Habitat preference - rivers and wet meadows. • Diet - plant material, including roots, tubers, shoots and leaves. Pintail • Habitat preference – lakes, rivers and marsh. • Diet – omnivorous, feeds on mud bottom at depths of 10-30cm. Redshank • Habitat preference – rivers, wet grassland, moors and estuaries. • Diet – invertebrates, especially earthworms, cranefly larvae (inland), and crustaceans, molluscs, marine worms (estuaries). Shelduck • 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
				and crustaceans. Turnstone • 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)	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; *Salicornia* and other annuals colonising mud and sand; Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*); Mediterranean and thermo-Atlantic halophilous scrubs (*Sarcocornetea fruticosi*); coastal lagoons. Annex II species: Common seal (*Phoca vitulina*); otter (*Lutra lutra*)	**Current pressures** Change in land management Air Pollution: impact of atmospheric nitrogen deposition **Potential future water threats** Public access/Disturbance – ongoing threat to site from recreational activities and low flying aircraft Siltation Fisheries: Recreational marine and estuarine - potential to impact on fish stocks as a resource for designated birds Invasive species Inappropriate coastal management Fisheries: Commercial and marine estuaries - risk to site features due to uncertainty of current management. No restriction on harvesting methodology	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring; • The extent and distribution of qualifying natural habitats 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.	In general, the qualifying habitats of the Ramsar rely on: • A range of coastal factors, including salinity, sedimentation, sea level, turbidity and elevation, which influence the interdependent intertidal, subtidal and terrestrial habitats. More specific examples have been provided below. Sandbanks which are slightly covered by sea water all the time • Reef-building species such as *Sabellaria spinulosa* help to stabilise the sediment, allowing the colonisation of sessile animals. In general, the qualifying species of the 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
		Coastal squeeze		provide foraging and shelter habitat for these species. Common Seal • Habitat preference – open coastal waters, beaches, rocky shores, sandbars and islands. • Diet - fish, squid, octopus and crustaceans such as shrimp. Otter • 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)	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. Criterion 3: The site supports diverse	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.	In general, the qualifying habitats of the Ramsar rely on: • 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 (*Selinum carvifolia*).			it. In general, the qualifying species of the Ramsar rely on: Invertebrates • Diets – flowering plants, organic matter and other invertebrate species for food resources.	
Wicken Fen Ramsar (outside FH)	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. Traditional management has created a mosaic of habitats from open water to sedge and litter fields. Criterion 2: The site supports one species of British Red Data Book plant, fen violet (*Viola persicifolia*), which survives at only two other sites in Britain. It also contains eight nationally scarce plants and 121 British Red Data Book invertebrates.	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.	In general, the qualifying habitats of the Ramsar rely on: • 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. In general, the qualifying habitats of the Ramsar rely on: Invertebrates • 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 HRA of the 'Issues and Options' SALP

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 23258	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 agree with the conclusion of the screening assessment that significant effects to European sites cannot be ruled out and therefore that an appropriate assessment is likely to be required, together with monitoring.	Noted.
Natural England 23258	As noted in our response to the HRA screening of the Single Issue Review, we find that there are issues with the format of the HRA and a lack of information on specific issues (please see our other HRA response for further details). This is particularly reflected in Appendix 1, the screening matrix for site options, and we have therefore provided detailed recommendations on this section.	The HRA report at Issues and Options stage sought to maintain consistency with that prepared for the Forest Heath area Core Strategy. 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 have been revised in subsequent stages of HRA through discussion and correspondence with Natural England.
Non-statutory consultees		
RSPB – Eastern England (Mr Mike Jones) 23109	We support the Site Allocations HRA's conclusion that including sites within the Breckland SPA buffer zones, which rely on project level HRA to gain consent, would risk delivery of the plan. Rather than make multiple identical comments on the individual allocations, we recommend all sites identified in paragraph 6.1 of the HRA, where a Likely Significant Effect on the Breckland SPA has been identified, should be excluded. We note the West Suffolk SHLAA (para 6.1) demonstrates that there is adequate land in the area to meet housing needs to 2031 without these sites.	It is appropriate for the HRA screening of the SALP Issues and Options document to identify where likely significant effects cannot be ruled out for any site allocation options put forward by FHDC in the SALP. Appropriate assessment at later stages of plan making demonstrates whether adverse effects on the integrity of Breckland SPA can be ruled out and hence whether development can proceed at the proposed site allocations.
RSPB – Eastern England (Mr Mike Jones) 23114	Ref. para. 4.66 of the HRA of the SALP re. the Local Transport Plan. Whilst wider trends in road traffic will not be within the plan's control, new housing supported by the plan will produce traffic increases. We therefore recommend that these are assessed in combination as part of the HRA for the SALP, not deferred to HRA of the Local Transport Plan.	LUC agrees that population increases associated with new housing supported by the plan may produce traffic increases. This is considered to be a strategic-scale issue and has therefore been considered through the HRA of the SIR rather than the HRA of the SALP.
Eclipse Planning Services on behalf of Crest Nicholson (Eastern) Ltd 23263	Contrary to paragraph 6.2, a project level HRA has been carried out in respect of site RL/06b (planning application reference F/2013/257/HYB). Likely significant effects on Breckland SPA were ruled out and identified minor effects (due to development within the 1,500 m stone curlew nesting attempts avoidance zone) are to be addressed via mitigation agreed with Natural England. Details of the	This error in the HRA of the SALP Issues and Options document is acknowledged. The current position is reflected in subsequent HRA reports.

Consultee	Summary of comment (N.B. Section and page numbers refer to the HRA report at Issues and Options stage)	LUC response
	mitigation are contained in the "Stone curlew Habitat Restoration Site, Land South East of Herringswell, Red Lodge, Suffolk – Habitat Restoration and Management Plan", submitted with the planning application.	
Suffolk County Council 23626	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. 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.	Noted.
Pegasus Group on behalf of Newmarket Horsemen's Group 23260	*HRA Para 2.9 and Appendix 3* Insufficient information included on reasons for designation, threats and reasons for adverse conditions of European sites.	European site information, in particular on pressures and threats, now reflects the latest information available in Natural England's Site Improvement Plans.
Pegasus Group on behalf of Newmarket Horsemen's Group 23260	*HRA Para 3.3* 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.	Review of other plans and projects has been extended in subsequent HRA reports.
Pegasus Group on behalf of Newmarket Horsemen's Group 23260	*HRA Para 4.19 with implications further* 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.	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 has commissioned a study to update this spatial data but the results were not available at the time of the HRA of the Issues and Options. The updated data was used in later stages of HRA, once they become available.
Pegasus Group on behalf of Newmarket Horsemen's Group 23260	*HRA Para 4.49* No evidence has been put forward to reduce the constraint zone for disturbance from 10 km as recommended by Fearnley et al (2010) to 7.5 km; a distance of 10 km should be retained and an Appropriate Assessment undertaken with this in mind.	Disagree. The 10 km distance referred to by (35) 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 (36) is measured from home postcodes to the boundary of Thetford Forest. (35) state that the two sets of findings are similar. See paragraphs 5.72 to 5.75 of this HRA

Consultee	Summary of comment (N.B. Section and page numbers refer to the HRA report at Issues and Options stage)	LUC response
		report for further discussion.
Pegasus Group on behalf of Newmarket Horsemen's Group 23260	*HRA Para 4.68 and following* 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 have been reassessed, informed by Natural England's Site Improvement Plans.
Pegasus Group on behalf of Newmarket Horsemen's Group 23260	*HRA para 4.90* 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.	The Council has relied on the Council's updated Water Cycle Study to inform the SIR and SALP and the HRA; this was not available at the time of the HRA of the Issues and Options.
Pegasus Group on behalf of Newmarket Horsemen's Group 23260	*HRA Para 4.112 and following* 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 23260	*HRA Para 4.120* 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 23260	*HRA Para 4.121* 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.
Pegasus Group on behalf of Newmarket Horsemen's Group	*HRA Para 4.121* 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.

Consultee	Summary of comment (N.B. Section and page numbers refer to the HRA report at Issues and Options stage)	LUC response
23260		
Pegasus Group on behalf of Newmarket Horsemen's Group 23260	*HRA Para 4.123* 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 subsequent stages of HRA (air pollution issues are now dealt with in the HRA of the SIR and AECOM's separate report). 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 23260	*HRA Para 5.3* Flood risk, water quality and water supply should be considered as it should be possible to identify sufficient spatial information to inform allocations - see comments above and made for the SIR.	See response to 'HRA Para 4.90' above.
Pegasus Group on behalf of Newmarket Horsemen's Group 23260	*HRA Section 6* In the light of the comments above, the conclusions and recommendations have failed to fully consider the issues raised by the allocations and the potential for LSE for any site has not been fully explored. Thus the overall potential for an LSE arising from any allocation is not documented.	See response to individual comments above.
Pegasus Group on behalf of Newmarket Horsemen's Group 23260	*HRA Paras. 6.4 and 6.7* Given the comments in para 4.49 the disturbance within 7.5 km is not appropriate and should be extended to 10 km.	See response to 'HRA Para 4.49' above.
Pegasus Group on behalf of Newmarket Horsemen's Group 23260	*HRA Para. 6.8* See comments under para 6.48. On this basis the potential for LSE on sites other than Breckland SPA and SAC have not been addressed. This would include Chippenham Fen, Devil's Dyke and the Rex Graham Reserve.	It is assumed that this comment is intended to refer to 'HRA Para 4.68 and following'. See response to that comment above.
Pegasus Group on behalf of Newmarket Horsemen's Group 23260	*HRA 6.12 and Appendix 2* As the conclusions relating to potential LSE have not been adequately documented then it is not possible to conclude that the full in combination effects have been appropriately considered. Further, the East Cambridgeshire Local Plan will be subject to review and some Plans have not been considered. (see comment on para 3.3).	See response to individual comments above.
Suffolk Wildlife Trust	Ensure that potential effects from allocations within Breckland SPA buffer zones are fully assessed prior to allocation, including potential	Screening assessment for all sites was carried out for all allocated sites and recommendations were made to the Council re. further action

Consultee	Summary of comment (N.B. Section and page numbers refer to the HRA report at Issues and Options stage)	LUC response
23257	cumulative/in combination effects. Carry out further assessment where HRA screening is unable to rule out likely significant effects before allocating sites.	required (including further assessment, if appropriate) to ensure that the requirements of the Habitats Regulations are met.

Consultation on the HRA of the 'Preferred Options' SALP

Respondent	Section of Preferred Options HRA report	Comment summary	LUC response
Natural England (statutory consultee)			
Natural England (Cheshire) (Ms Francesca Shapland) 24212	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 have some concerns about the method of screening site allocations, which is outlined in the section below.	Noted. Specific concerns addressed below.
Natural England (Cheshire) (Ms Francesca Shapland) 24212	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) 24212	4.31 - 4.58 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	Breckland SPA 7.5 km buffer 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 (38) identifies as having a 'Arable and horticulture' habitat type.

Respondent	Section of Preferred Options HRA report	Comment summary	LUC response
		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 reviewing the site allocations again with that in mind.	
Natural England (Cheshire) (Ms Francesca Shapland) 24212	4.31 - 4.58 Recreation Pressure	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. 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. 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.	Subsequent to Issues and Options stage, the method applied to HRA screening of the SALP was 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)	4.1 The FHDC Deliverability Study (Screening Criteria)	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	The method applied by the HRA screening of the SALP does not rely on the screening criteria applied by FHDC in its Deliverability Study.

Respondent	Section of Preferred Options HRA report	Comment summary	LUC response
24212		relates to the screening criteria of all the relevant councils. 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 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.	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 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) 24212	Information included within this HRA screening document	We note that the draft HRA screening of the single issue review contains less information than the accompanying HRA screening for the single issue review. The Section 7, Conclusions and Recommendations within that document contains information on existing mitigation and recommendations. This information is also relevant to the HRA screening for the site allocations as you need to establish whether current or planned mitigation may protect the sites, and therefore any sites can be screened out of your appropriate assessment. We would recommend you make sure that this draft HRA screening contains all the relevant information necessary from the other report.	The conclusions sections of the HRA screening of the SALP now present information on existing mitigation where this is relevant to the likely significant effects from site allocations which cannot be ruled out, prior to consideration of screening.
Natural England (Cheshire) (Ms Francesca Shapland) 24212	5.8 Settlement boundary reviews	Following a review of the proposed changes to the settlement boundaries, we agree that the extensions are not likely to lead to likely significant effects and so can be ruled out at this stage. Where boundary extensions affect the Breckland Forest 400m and 1500m constraints zones, these are not likely to result in further development as the extensions leave little room outside of current or planned development. Many of the changes will actually provide further protection for Breckland SPA as they take sections out of the	Noted.

Respondent	Section of Preferred Options HRA report	Comment summary	LUC response
		constraints zones or away from other areas that support biodiversity.	
Natural England (Cheshire) (Ms Francesca Shapland) 24212	The stone curlew nest attempts data	We understand that the stone curlew nest attempts information is not yet ready and consider that this should be added when it becomes available.	The HRA screening of the Proposed Submission and subsequent stages of the SALP was based on updated stone curlew nesting attempts data supplied to FHDC by Footprint Ecology in July 2016 (50).
Non-statutory consultees			
KWA Architects (Mrs Meghan Bonner) for Hills Residential Ltd 24087	General point	The exclusion of site RL/07 is unjustified. A site assessment carried out by qualified and competent ecologists confirms the development of site RL/07 would not affect Stone Curlew. Development of site RL/07 is not likely to have any greater impacts on Stone Curlew than the sites already taken forward in the Local Plan and therefore in the interests of reasonableness site RL/07 should be allocated. This would not alter the position set out in table 6.1 of the HRA. See supporting documents. Site RL/07 should be allocated for mixed residential and HRI use as set out in the supporting documents.	The choice of sites to be allocated is a matter for FHDC in preparing the Local Plan informed by the HRA.
Pegasus Planning for Newmarket Horsemen's Group 24575	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 24579	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 screening of the SALP does not rely on the screening criteria applied by FHDC in its Deliverability Study.
Pegasus Planning for Newmarket	4.11 Disturbance and other urban	There is an omission of other effects including fragmentation,	Vandalism is not identified by Site Improvement Plans as a particular current pressure or potential future threat facing

Respondent	Section of Preferred Options HRA report	Comment summary	LUC response
Horsemen's Group 24577	edge effects	vandalism, connectivity in the assessment	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'. 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 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 24579	4.17 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 24579	4.22 Disturbance and other urban edge effects – stone curlew nesting attempts	This predates the reappraisal of stone curlew records and will need reconsideration. A 1km grid square is unnecessarily onerous and may include land that is suitable thus skewing the allocation of sites, consideration of options.	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 was used for HRA of the Proposed Submission and subsequent stages of the Local Plan. The screening uses the most appropriate stone curlew nesting attempts data available and this is reported using 1 km grid squares (50). The approach has been agreed with Natural England.
Pegasus Planning for Newmarket Horsemen's Group 24580	4.32 Recreation pressure – European sites potentially affected	The distance of 7.5 km from the area boundary is not appropriate because of the potential for in combination effects. Two sites are vulnerable to recreational pressure: • 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.	Disagree - it is considered that development within the area will not make a significant contribution to in combination recreation effects beyond a distance of 7.5 km. The site is generally closed to the public and the plant

Respondent	Section of Preferred Options HRA report	Comment summary	LUC response
		Rex Graham reserve - theft is not a result of recreational pressure but specific criminal activity. It is considered that this needs a separate section.	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.
Pegasus Planning for Newmarket Horsemen's Group 24581	4.42-4.46	The NHG's previous comments about the applicability of the 7.5 km v 10 km 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 10 km boundary should be adhered to. The report says that the majority of visitors live within 10 km but there is in fact a case for a greater than 10 km radius as the average distance from home to survey location in the Fearnley report was 16.7 km. 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.	Disagree. The justification for use of a 7.5 km buffer set out in the HRA report stands and has been agreed with Natural England.
Pegasus Planning for Newmarket Horsemen's Group 24583	4.50	For the reasons set out in relation to 4.42 and following.	Specific points addressed above and below.
Pegasus Planning for Newmarket Horsemen's Group 24584	4.59-4.66	The NHG considers that Water Quality, Water Quantity and Air Pollution are not appropriately dealt with. Furthermore, at paragraph 4.66 it is the location of a road and its juxtaposition to a component SSSI which may determine whether there is a likely significant effect. The NHG is concerned to see that water quantity is not appropriately addressed and notes that the Sustainability Appraisal advises at p 460 that potential effects will primarily be a function on the cumulative effect of all the proposed growth. The NHG has already made comments in relation to the HRA for the SIR to make the point that this is not true because there are different WRZ and therefore potential deficits and availability of water needs in each to be taken into account in determining site allocations. This has not been done and is thus inadequate. The NHG considers that it is not appropriate to rely on the	Noted. The location of roads in relation to European sites which are sensitive to air quality effects is initially considered in the HRA of the SIR and in more detail in the separate air quality report prepared by AECOM. As stated in the response to similar comments on the HRA of the Issues and Options SALP, the Council had commissioned an updated Water Cycle Study 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 Preferred Options. At Proposed Submission and subsequent stages, any site-specific issues were dealt with in the HRA of the SALP.

Respondent	Section of Preferred Options HRA report	Comment summary	LUC response
		future (now complete) Water Cycle Study to reveal site specific issues to be addressed at this consultation stage.	Noted.
Pegasus Planning for Newmarket Horsemen's Group 24585	Appendix 1	The NHG considers that the screening exercise in Appendix 1 is inadequate as it only considers direct damage, disturbance/ urban effect and recreation. It does not consider water, air quality, sewage etc. Furthermore, the NHG objects to the use of 7.5 km as a screening tool for recreation for the reasons already explained. This distance unreasonably rules out Newmarket and Exning from any further consideration as it considers there will be no likely significant effects. The implication of this is that it puts these sites to the forefront of any consideration based on an inaccurate screening exercise. Appendix 1 does not consider the likely significant effects from non-housing allocation sites, which might result from disturbance/ recreation from lunch time walks, after work walks etc. This NHG considers that this is a shortcoming of the exercise and should be rectified.	The reasons for considering certain effects in the HRA of the SIR rather than that of the SALP are clearly set out in the HRA report and remain valid. 7.5 km recreation buffer: see responses above and to comments on HRA screening of Issues and Options document. Recreation effects from non-housing development are judged not to present a credible threat to Breckland SPA. In any event, disturbance from all forms of development within 1,500 m of Breckland SPA is assessed under the 'disturbance and other urban edge effects' category.
Pegasus Planning for Newmarket Horsemen's Group 24586	6.5	Given that likely significant effects could not be excluded with certainty, as is required under the legislation, for recreation and water quantity, the NHG considers that there is a need to properly consider the potential in combination effects for every relevant European designated site. Further where mitigation has been proposed, it is necessary to reaffirm that this remains deliverable with the addition of a new plan.	The review of other relevant plans and projects considers the potential for in combination effects on all European sites within the scope of the HRA of the SALP. The in combination assessments for the HRA of the Proposed Submission and Modification stages of the SALP considered whether any non-significant effects could potentially combine with non-significant effects from other plans and projects to become significant and the deliverability of any relevant mitigation.
Pegasus Planning for Newmarket Horsemen's Group 24587	6.7-6.12	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

Respondent	Section of Preferred Options HRA report	Comment summary	LUC response
			subject to project level HRA.
Pegasus Planning for Newmarket Horsemen's Group 24588	6.14 and following	As previously discussed there are good reasons for the buffer zone to be 10km.	See responses above and to comments on HRA screening of Issues and Options document.
Pegasus Planning for Newmarket Horsemen's Group 24589	6.25 Role of Accessible Natural Greenspace study in mitigating recreation pressure	The NHG considers that it is not sufficient to 'help mitigate 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. No detailed information is given on the sites that would be potentially affected.	Natural England commented on FHDC's Natural Accessible Greenspace Study at Preferred Options stage that *"it has not been proved that strategic recreational effects are having an effect on the qualifying species of Breckland SPA"* but recognising the potential for development in the area to give rise to such effects and stating that "*we welcome the approach set out in the report to address this potential issue*". 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.
Sellwood Planning for Lord Derby 24085	4.31 Recreation pressure – Hatchfield Farm allocation	It is therefore recommended that the pre submission version of the SALP reduces the area of the Hatchfield Farm allocation to that needed to accommodate the level of development proposed. Since this results in none of the allocation being within or touching the 7.5km buffer of the Breckland SPA, this issue is resolved.	Noted.
Sellwood Planning for Lord Derby	Appendix 1: Disturbance and other urban edge effects – Hatchfield Farm allocation	Since Appendix 1 of the HRA already concludes that the Hatchfield Farm allocation is unlikely to generate disturbance or other urban edge effects from construction or occupation of buildings on the Breckland SPA and SAC, the reduction in the extent of the allocation means that no SPA / SAC effects are to be expected.	Noted.
Sellwood Planning for Lord Derby 24085	4.60 Water Quantity	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	Noted. As per the intention stated in the HRA of the Preferred Options SALP, water quantity has primarily been assessed via HRA of the SIR and has referenced the update to the Water Cycle Study; any relevant mitigation was taken into

Respondent	Section of Preferred Options HRA report	Comment summary	LUC response
		technical and regulatory measures which interlock to ensure there could be no risk to European sites. Therefore there will be no likely significant effects on internationally important sites in terms of water supply which is in accordance with the Conservation of Habitats and Species Regulations.	account.
Sellwood Planning for Lord Derby 24085	4.61 Water quality	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.	Noted. As per the stated intention in the HRA of the Preferred Options and Modification stages of the SALP, water quality has been primarily assessed via HRA of the SIR and referenced the update to the Water Cycle Study.
Sellwood Planning for Lord Derby 24085	4.65 Air pollution – Hatchfield Farm allocation	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.	Noted.
Breckland District Council (Martin Pendlebury) 24099	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 SALP but the HRA of the Proposed Submission SALP has sought to be consistent.
Suffolk Wildlife Trust (Mr James Meyer) 24283	6.11 Screening conclusion for disturbance and other urban edge effects	We note that the screening conclusion in paragraph 6.11 of the document concludes that likely significant effects on the Breckland SPA, arising from 'disturbance and other urban edge effects from construction or occupation of buildings' from the site allocations identified, cannot be ruled out. As likely significant effects cannot be ruled out, Appropriate Assessment of the identified site allocations policies must be undertaken to determine whether their adoption and allocation would result in an adverse impact on the integrity of the SPA. In the absence of the demonstration of no adverse impact on the integrity of the SPA, the sites should not be allocated for development.	HRA screening at the Preferred Options and subsequent stages was designed to highlight likely significant effects to FHDC and to provide the basis of recommendations to avoid these. Where likely significant effects could not be ruled out in HRA screening of the SALP, Appropriate Assessment of the relevant policies was carried out.
Suffolk Wildlife Trust (Mr James Meyer) 24283	Recreation pressure – mitigation strategy	With regard to impacts from increased recreational pressure, we agree that a recreational mitigation strategy is required and are pleased to see that this will be informed by an up to date accessible natural greenspace study. Any sites allocated for new development must provide open space in accordance with the requirements of the recreational mitigation strategy.	Noted. The assessment of recreation pressure considered whether the Local Plan adequately reflects the recreation mitigation strategy set out in the accessible natural greenspace.

Respondent	Section of Preferred Options HRA report	Comment summary	LUC response
Suffolk Wildlife Trust (Mr James Meyer) 24283	Recreation pressure – Rex Graham Reserve SAC	In its consideration of recreational impacts, the HRA screening includes the Rex Graham Reserve SAC, it is our understanding that this site is not publically accessible, except for designated open days, this should therefore be included in the consideration of likely impacts on the site.	As stated in response to Natural England comment above [Ref. C-24212-12637], the method applied to HRA screening of the Proposed Submission and Modification stages of the SALP was amended to remove the assumption that likely significant recreation pressure effects cannot be ruled out for housing allocations within 7.5 km of Rex Graham Reserve SAC.
Newmarket Horsemen's Group (NHG) 24582	4.47 Recreation pressure – Rex Graham Reserve SAC	This is not recreation pressure.	See response to comments C-24212-12637 and C-24283-12367 above.

Consultation on the HRA of the 'Proposed Submission' SALP

Respondent	Section of Preferred Options HRA report	Comment summary	LUC response
Natural England (statutory consultee)			
24883 - Natural England (Cheshire) (Ms Francesca Shapland)	General point	Habitats Regulations Assessment We are pleased that our previous comments from the HRA screening stage have evidently been taken into account within chapters 1-5 of the current HRA and agree with the conclusions of the Appropriate Assessment, Chapter 7. However we consider that in order to ensure the HRA is robust, issues relating to recreation need further explanation and we again highlight a point we made in our previous advice that the screening criteria would benefit from review.	Noted. Responses to detailed concerns are provided below.
24883 - Natural England (Cheshire) (Ms Francesca Shapland) []	Recreation effects	<u>Recreational effects to Breckland Farmland/Breckland SPA within the 1.5km constraints zone</u> The effect of recreation on farmland within the 1500m constraints zone does not appear to have been screened into the appropriate assessment or covered in much detail within the section on recreation. Recreational disturbance due to walking/dog walking activities by local residents in close proximity to Breckland Farmland SSSI is likely to be a	In response to this comment, changes to the methodology for future iterations of the HRA of the SALP were proposed under the heading 'Recreation' in LUC's letter to Natural England of 23 May 2017. These have been agreed by Natural England, as confirmed in the Statement of Common Ground dated 4 October 2017.

Respondent	Section of Preferred Options HRA report	Comment summary	LUC response
		contributing factor to stone curlew's avoidance of nesting in proximity to housing. Therefore whilst we agree that the cumulative effect of recreation within a 7.5km radius on the heath and forest areas can be screened out of the appropriate assessment, effects on the farmland elements need to be carried forward. Taking this into account, chapters 6 and 7 should be reviewed and changed accordingly. <u>Recreational effects to Breckland Forest /Breckland SPA within the 400m constraints zone</u> The immediate effect of housing in close proximity to Breckland Forest SSSI/Breckland SPA i.e. within the 400m constraints zone, needs to be considered separate to the cumulative recreational effect within 7.5km. This is due to the fact that allocations within 400m would be likely to require specific mitigation to address increased recreation within the local area and therefore measures that would be likely to mitigate for the cumulative effect of increased housing within 7.5km of Breckland Forest SSSI would not be sufficient to address the effect in close proximity to Breckland Forest SSSI/Breckland SPA. Therefore this should also be mentioned as a separate issue in the recreational section in Chapter 6 (although it does not appear to be relevant to any housing allocations). Note that any housing allocations within the 400m buffer would need to be screened into the appropriate assessment as an effect to integrity could not be initially ruled out.	
24883 - Natural England (Cheshire) (Ms Francesca Shapland) []	Air quality effects	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, in terms of individual site allocations, the information is sufficient to rule out effects to the integrity of Breckland SAC and Breckland SPA.	Comments noted
24883 - Natural England (Cheshire) (Ms Francesca Shapland) []	Screening criteria	As stated in our previous response, there are many other factors that affect stone curlew nesting density. Natural England agrees that any proposals that will not increase the existing amount of built development on the site can be screened out, but we are not satisfied that all proposals that are within the 1.5km constraints zone but screened	In response to this comment, proposed changes to the methodology for future iterations of the HRA of the SALP are provided under the heading 'Screening criteria' in LUC's letter to Natural England of 23 May 2017. These have been agreed by Natural England, as confirmed in the Statement of Common Ground dated 4

Respondent	Section of Preferred Options HRA report	Comment summary	LUC response
		from Breckland SPA can be screened out from further assessment, unless indirect effects have also been considered in detail. We would welcome a change to the wording of this criteria as whilst we agree that anything small and within an established town can be screened out, we are not comfortable that this applies to medium sized developments or those outside of large settlements as the only effect screening addresses is visual disturbance.	October 2017.
24883 - Natural England (Cheshire) (Ms Francesca Shapland) []	Table 7.1	Housing Allocations Table 7.1 (for which project level HRA relied on) We are happy with all allocations in Table 7.1 as we have been consulted on the ones that would cause concern already and ruled out an effect on integrity (subject to appropriate mitigation).	Comments noted
24883 - Natural England (Cheshire) (Ms Francesca Shapland) []	Table 7.2	Table 7.2 (for which project level HRA not relied on) We agree with most of the conclusions drawn in this table but consider it needs amendment in view of our comments above on recreational effects to Breckland Farmland SSSI within the 1500m buffer and the screening criteria. Assessment on recreational effects should be added to the Potential for Indirect urban edge effects column. In particular, we recommend the following changes. SA2a - We agree that effects to integrity can be ruled out but update the indirect effects column as above. SA5 A & B - We agree with the conclusion that adverse effects can be ruled out, but suggest the following information is added. In the column for Potential Direct Disturbance we advise that further detail on the location should be included, so it is possible to assess whether noise disturbance would be a factor. In the Column covering the potential for indirect urban edge effects we would recommend that recreational effects should be discussed but can also be ruled out due to the size of the proposal, its position in town and separation by the A1065. SA17a and SA7b - We agree with the conclusions and do not consider that these need amendments. SA10 - Even though only a small proportion of this is within the 1500 constraints zone, a development of this size at this distance from the SPA may require mitigation to offset	In response to this comment, proposed changes to the methodology for future iterations of the HRA of the SALP were provided in LUC's letter to Natural England of 23 May 2017. Modifications to require measures to mitigate recreational effects to stone curlew on farmland have been proposed. These have been agreed by Natural England, as confirmed in the Statement of Common Ground dated 4 October 2017.

Respondent	Section of Preferred Options HRA report	Comment summary	LUC response
		the recreational effect to stone curlew. In our view it is therefore not possible to rule out an effect on integrity here without providing further information on the need for a project level HRA with mitigation if necessary, and regarding its position in relation to the nest attempts buffer.	
Non-statutory consultees			
24936 – RPS for Elveden Farms Ltd. []	Paragraphs 5.11, 5.12, 6.9, and 6.13	RPS on behalf of Elveden Farms Ltd, seek to object to the Habitats Regulations Assessment of the Site Allocations Local Plan. This objection is formed on the basis of the following points: * With reference to paragraphs 5.11, 5.12, 6.9, and 6.13 we consider it incorrect to state that the allocation of site SA7(b) could have a potential effect upon Breckland SPA. There has been an application submitted for this site in which the effects of development upon the Breckland SPA have been discussed. FHDC resolved to grant planning permission subject to a S106 agreement, this therefore demonstrates that FHDC considers that there would be no likely significant impact of the development on the SPA. On this basis, we consider it wrong for the SALP HRA to ignore this vital information;	The HRA screening methodology applied in these paragraphs was agreed with Natural England. It is based on the principle of development within the allocated boundary rather than a specific proposal and only takes account of mitigation provided by the adopted Core Strategy and emerging SIR and SALP. The approach to consideration of more detailed evidence available from any project level HRA that has already been carried out is described at paragraph 7.3. In relation to site SA7(b), FHDC completed a project level HRA in 2014 but stated that this would need significant updating to ensure it is fit for purpose; the HRA of the SALP did, therefore, not rely upon it. As set out in Table 7.2, Appropriate Assessment for this site allocation was able to rule out an adverse effect on the integrity of Breckland SPA.
24936 – RPS for Elveden Farms Ltd. []	Paragraph 6.30	* We consider paragraph 6.30 and the adjacent box to be contradictory in which we would require more clarification. We would also require confirmation that developers are not asked to fund the ANGST plan implementation as impacts are provided equally by residents of existing and proposed housing.	Both paragraph 6.30 and the following boxed HRA screening conclusion state that likely significant effects on Breckland SPA due to recreation pressure can be ruled out. New development would be required to make a proportionate contribution to mitigate in combination recreational effects on the SPA.
24936 – RPS for Elveden Farms Ltd. []	Table 7.2	* With reference to table 7.2 we agree and support the conclusion that SA7 (b) has no adverse effect upon the integrity of the Breckland SPA.	Comments noted
24936 – RPS for Elveden Farms Ltd. []	Development at Little Eriswell (REF. DC/16/1360/FUL)	To conclude, RPS CgMs on behalf of Elveden seek to object to the Habitats Regulations Assessment of the Site Allocations Local Plan on the basis that the material included within it makes little or no reference to the inclusion of the development at Little Eriswell (REF.	The proposal for development at Little Eriswell is not supported by the Council and not allocated in the SALP. This development is included in the list of other projects in Appendix 2 and used information available at that time. It has now been updated to reflect the latest

Respondent	Section of Preferred Options HRA report	Comment summary	LUC response
		DC/16/1360/FUL). As part of this application, the impacts of development on the Breckland SPA where [sic] discussed with Natural England in which they expressed satisfaction with the mitigation measures proposed. As a result it is considered that the development on this site has shown to have no adverse impact upon the integrity of the Breckland SPA and so it is recommended that the site should be allocated within the plan.	correspondence between the Council and Natural England.
24721 – KWA Architects for Hills Residential Ltd []	Site RL/07	In assessing our comments during previous consultation rounds, FHDC states 'the choice of sites to be allocated is a matter for FHDC in preparing the Local Plan informed by the HRA.' They have not commented or apparently reviewed the additional information provided. Whilst it is FHDC's choice to allocate sites, this must be based on the most appropriate sites coming forward and a consistent assessment. Continuing to decline to allocate site RL/07 for impact on Stone Curlew when a full assessment has been provided to demonstrate it will not impact on Stone Curlew (which is now supported by Natural England - see Appendix 2) is unacceptable and contravenes requirements for positive plan preparation, a justified plan and a plan which is consistent with national planning policy. To address this, site RL/07 should be allocated.	The HRA of the SALP did not assess site RL07 because FHDC are not allocating it.
24939 - RSPB - Eastern England (Mr Mike Jones) []	Box 1: FHDC Recreation Mitigation and Monitoring Strategy: Key Features - page 33.	We strongly support the Recreation Mitigation and Monitoring Strategy in order to address recreational pressures on European sites from the new housing allocations. However, as the plan needs to be able to anticipate and mitigate any recreational pressures before they become adverse, especially given research has identified a projected increase in visitor pressure of 30% on the Breckland SPA as a result of the adjacent Local Authority's housing plans, we strongly recommend that the monitoring proposals in the Strategy are made a core and regular feature, as per the approach taken in neighbouring authorities' plans.	Comments noted

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

Respondent	Section of Main Mods HRA report	Comment summary	LUC response

Respondent	Section of Main Mods HRA report	Comment summary	LUC response
24970 – KWA Architects for Hills Residential Ltd	General point	RL/07 should be allocated instead of SA10 as the former has been subject to extensive ecological assessment already and the latter has been subject to none. Allocating SA10 is unlawful following the Court of Justice of the European Union ("CJEU") People Over Wind and Sweetman v Coillte Teoranta (C-323/17) decision	All allocated sites including that in policy SA10 have been subject to a Habitats Regulations Assessment. An Addendum to the SIR and SALP HRA's (June 2018) 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).
24997 – 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.
24952 - 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) 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 SALP 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
Natural England	General points	Natural England welcomes the updated assessment. We consider the assessment to be legally compliant with regards to our strategic environmental interests. As above, the recent EU rulings have, in our view, been taken into account in the way applications have been assessed and described in the report. As above, we particularly welcome the further clarity on the offsetting measures to address recreational impacts. In terms of the information on the allocations, which we note is all accurate in terms of Natural England's input, we particularly welcome the removal of screening as a means of avoidance of effects following our earlier advice.	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.