

Forest Heath District Council

Single Issue Review

Policy CS7 of the Core Strategy Document

**Habitats Regulations Assessment, (HRA),
Screening Stage**

July 2012



Forest Heath

District Council

Contents

1. Introduction

- 1.1 Overview of the process to date
- 1.2 Background to Habitats Regulations Assessment
- 1.3 Outline of Habitats Regulations Assessment process
- 1.4 Introduction to the HRA screening process

2. European sites potentially affected by the Single Issue Review

3. Baseline conditions affecting European sites

4. Is it necessary to proceed to the next HRA stage? Which aspects of the document require further assessment?

4.1 Screening of the Single Issue Review

1. Introduction

1.1 Overview of the process to date:

In order to ensure that the Single Issue Review is compliant with the requirements of the Conservation of Habitats and Species Regulations 2010, Forest Heath District Council has embarked upon an assessment of the 'Reviews' implications for European wildlife sites, i.e. a Habitats Regulations Assessment of the plan. This report sets out the first stage of the HRA process for the Single Issue Review, the Screening Stage.

To establish if the 'Review' is likely to have a significant adverse effect on any European sites it is necessary to consider evidence contained in the original HRA of the Forest Heath Core Strategy DPD that was produced in March 2009. For a number of policies within the Core Strategy, including the original Policy CS7, it was considered either that significant effects would be likely, or that a precautionary approach would need to be taken as it could not be determined that those particular plan policies would not be likely to have a significant effect upon any European Site. The guidance is clear in that where it is not possible to apply avoidance measures to completely remove the likelihood of significant effects, including where the effects are not fully understood, the relevant aspects of the plan must be subject to Appropriate Assessment. The Core Strategy HRA presented a number of important factors which need to be re-assessed and re-considered as part of the screening process for the Review of Policy CS7.

1.2 Background to the Habitats Regulations Assessment:

The HRA is required by the Conservation of Habitats and Species Regulations 2010, (the Regulations), for all plans and projects which may have adverse effects on European sites. European sites include Special Areas of Conservation, (SAC), and Special Protection Areas, (SPA). HRA is also required, as a matter of UK Government policy for potential SPAs, (pSPA), candidate SACs, (cSAC) and listed Wetlands of International Importance, (Ramsar sites), for the purposes of considering plans and projects, which may affect them.

1.3 Outline of the Habitats Regulations Assessment process:

The Habitats Regulations Assessment procedure is outlined in Figure 1 below. Depending on the outcome of the Habitats Regulations Assessment, the LPA may need to amend their plan to eliminate or reduce potentially damaging effects on the European site(s).

It will be seen that the key stages are screening, scoping, the 'Appropriate Assessment', introducing mitigation measures, consultation and recording the assessment. This document forms the screening stage of the assessment of the Single Issue Review.

1.4 Introduction to the HRA screening process:

Screening is the process of deciding whether or not an Appropriate Assessment is required for a particular plan. It reflects the formal requirement of the Habitats Directive that all plans or projects likely to have a significant effect on a European site, (either alone or in-combination), must be subject to Appropriate Assessment unless they are directly

connected with or necessary for the management of European sites. It is not and should not be seen as an alternative to Appropriate Assessment itself. Screening requires sufficient information to determine if there is likely to be a significant adverse effect on a European site. The Appropriate Assessment requires more detailed information to determine whether those likely significant effects will or could result in an adverse effect on the integrity of the European site. It is important not to end up front-loading the screening process with detail more appropriate to the Appropriate Assessment.

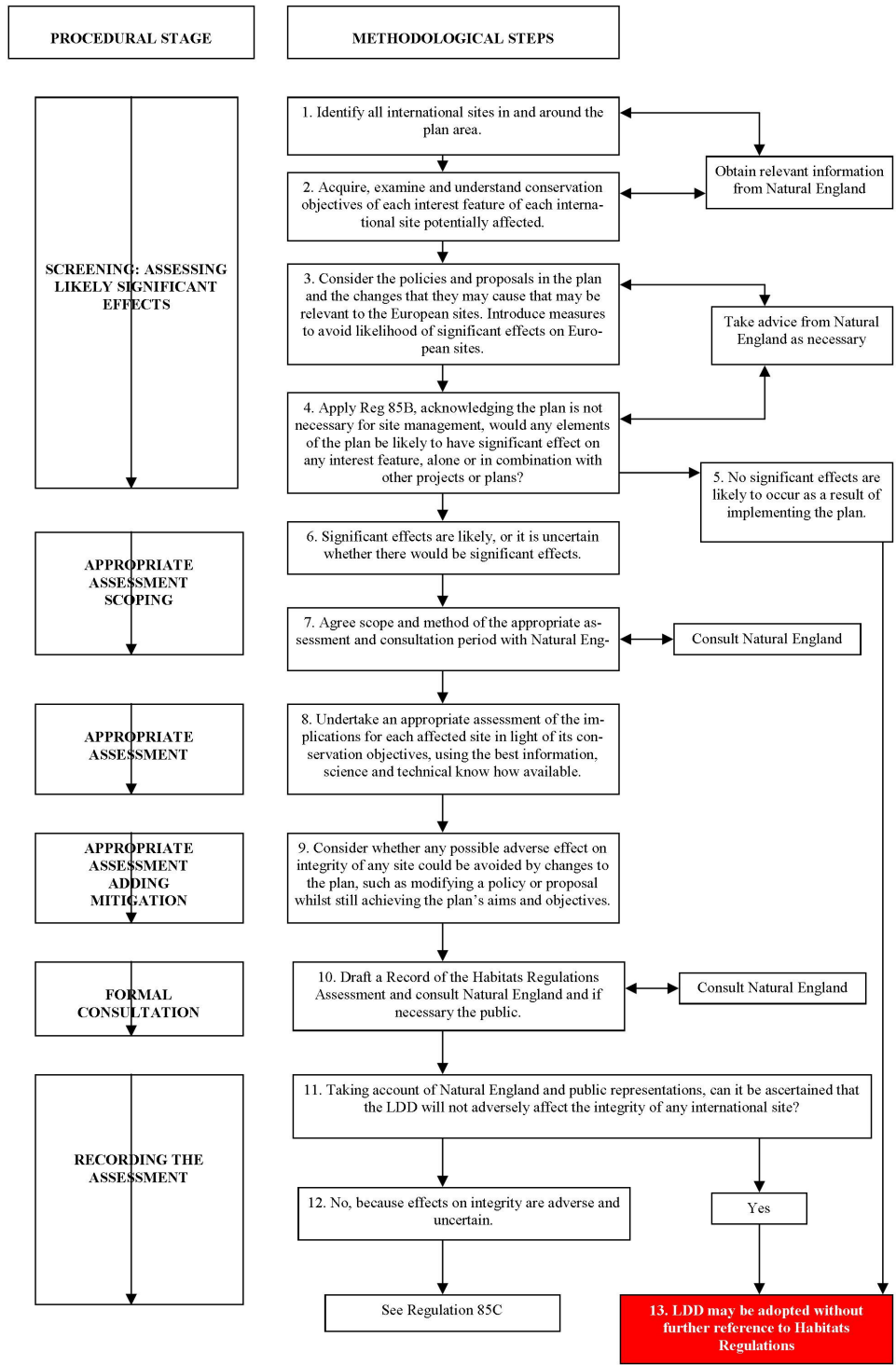


Figure 1 – Outline of the procedure for Habitats Regulations Assessment

2. European sites potentially affected by the Single Issue Review DPD

Forest Heath District lies in an area of considerable importance for nature conservation with a number of European sites located within and just outside the District. The range of sites, habitats and designations is complex. Some of the European sites include a large number of component SSSIs scattered over a broad area, (such as the Breckland SAC), others such as the Breckland SPA cover a large area and are virtually contiguous. In some areas both SPA and SAC designations apply, while other parts of sites or areas are only covered by one designation.

As part of the Habitats Regulations Assessment it is necessary to perform a screening exercise to consider which sites may or may not be affected by the Single Issue Review. This exercise is carried out to ensure that all sites and all site interest features that are likely to be significantly affected by the 'Review' have suitable avoidance measures applied or are taken forward to the more detailed Appropriate Assessment.

For the screening we looked at European sites both inside and outside of the District, because impacts such as water abstraction, waste water discharge and increased recreation could have effects well beyond the District boundary. Work in other parts of the country, (Liley *et al.*, 2008; Sharp *et al.*, 2008b) has shown that coastal sites or large tracts of semi-natural habitat will attract a relatively high proportion of residents from up to 20km away from the site, therefore a 20km buffer has been used for the initial search area. This buffer is shown in Figure 2 and all the European sites which fall entirely or partly within it are summarised in Table 1.

Table 1. European Sites in and around Forest Heath District, entirely or partly within 20km of the District boundary (sites in *italics* are outside of FHDC boundary but within 20km)

SPA	SAC	Ramsar
Breckland <i>Ouse Washes</i>	Breckland Rex Graham Reserve Devils Dyke <i>Fenland</i> <i>Waveney and Little Ouse</i> <i>Valley Fens</i> <i>Norfolk Valley Fens</i> <i>Ouse Washes</i>	<i>Chippenham Fen</i> <i>Wicken Fen</i> <i>Ouse Washes</i> <i>Redgrave and Lopham Fen</i>

From the list in table 1 we have screened out the following sites due to their character, habitat type, size or location. It is considered unlikely that any significant effects will occur on:

- Waveney and Little Ouse Valley Fens SAC: The three sites which make up this SAC lie right on the eastern edge of the 20km buffer. Overall the sites are unlikely to attract significantly increased numbers of visitors due to their location. They are upstream of any development which will occur in Forest Heath and it is not believed that water abstraction for developments in Forest Heath will affect these sites.
- Redgrave and Lopham Fen Ramsar: This site is also part of the Waveney and Little Ouse Valley Fens SAC, it lies right on the eastern edge of the 20km buffer. Although the site has a visitor centre and is relatively well known, it seems that it is unlikely that development in Forest Heath will result in significantly increased visitor

numbers due to the site's distance from the District's settlements. It is upstream of Forest Heath and it is not believed that water abstraction or discharges in Forest Heath will affect the site.

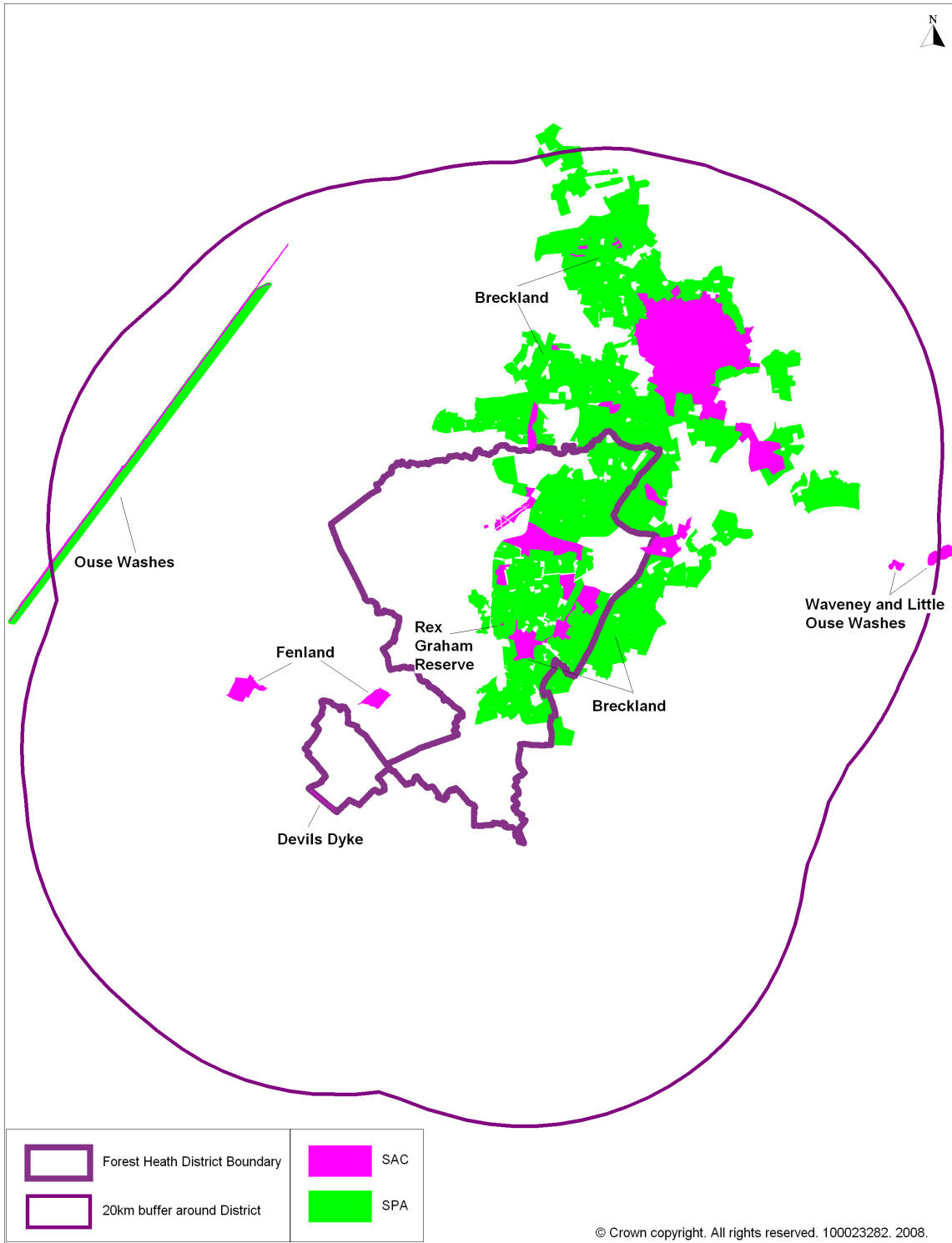


Figure 2 – European sites within 20km of Forest Heath (not to scale)

3. Baseline conditions affecting the European sites

Once sites have been identified it is necessary to gather further information on each site to understand its interest features and site sensitivities in order to ascertain whether effects are likely, and then whether those effects are likely to have adverse effects upon the integrity of the European site. Table 2 lists all sites and relevant component SSSIs, providing context and highlighting issues that might be relevant in the next stage of the assessment process.

Table 2 – European sites relevant to this assessment. For each site the relevant threats, vulnerabilities and key issues are highlighted, along with a summary of the reasons for the site designation. Data is drawn from Natural England SSSI condition assessments, the UK SPA site accounts, SAC summary details and Ramsar site accounts. The table includes component SSSIs for each European site.

Site	Reason for designation	Condition	Threats and reasons for adverse conditions	Notes
Breckland SPA Component SSSIs within Forest Heath (listed below)	Breeding populations of Stone Curlew (60% GB breeding population), Nightjar (12% GB breeding population) and Woodlark (29% GB breeding population). Increasing stone curlew populations (on arable but not heathland), recent declines in nightjars and woodlarks.		Agricultural operations: disturbance to Annex I birds; high nitrogen loads causing undesirable habitat change; development pressures and infrastructure; egg collecting.	
Breckland Forest	Breeding woodlark and nightjar (recent declines), rare plants and invertebrates, geology. Also red squirrel.	99.91% Unfavourable recovering		
Breckland Farmland	Stone curlew population (increasing)	100% Favourable		
How Hill Track	Rare plants.	100% Favourable		
West Stow Heath	Rare plants (grassland and heath)	14.51% Favourable, 85.49% Unfavourable recovering	Inappropriate scrub control, under-grazing and inappropriate cutting/ mowing in some areas.	
Eriswell Low Warren	Rare plants	100% Favourable		
Individual SSSIs which	Stone curlew (population	Various (see SSSIs	Nutrient deposition, run-	

are components of both Breckland SPA and Breckland SAC are listed below:	declining on heathland sites), nightjar and woodlark. Grassland and heathland habitats (see details in Breckland SAC).	listed under Breckland SAC)	off, scrub invasion and inappropriate recreation.	
Breckland SAC Component SSSIs within Forest Heath (listed below)	Annex I habitats: inland dunes, natural eutrophic lakes, European dry heaths, semi-natural dry grasslands and scrubland facies, alluvial forests. Annex II species: Great Crested Newts.		Nutrient deposition and agricultural run-off. Woodland and scrub invasion of open grassland and heaths and uncontrolled and inappropriate recreational activities.	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 total extent is estimate to be less than 1,000 hectares.
Berner's Heath, Icklingham	Largest remaining area of heather-dominated heath in Breckland, also rare plants.	97.09% Favourable, 2.91% Destroyed	2.91% destroyed by conversion to agriculture in early 1980's	
Thetford Heath	Rare plants (grassland, heather heath and lichen/moss heath)	36.32% Favourable, 57.06% Unfavourable recovering, 6.62% unfavourable no change.		
Foxhole Heath, Eriswell	Rare plants (lichen/moss heath, heather heath and grassland), stone curlew.	100% Favourable		
Cavenham-Icklingham Heath	Rare plants (grassland, heather heath, lichen/moss) and birds inc. breeding stone curlew, nightjar and woodlark. Also rare invertebrates.	29.32% Favourable, 66.43% Unfavourable recovering, 1.66% Unfavourable no change, 2.59% destroyed	Various reasons including air pollution, drainage, inappropriate water levels and water abstraction.	2.59% destroyed by mineral extraction.

Weather and Horn Heaths	Good example of Breckland heath and grassland communities, rare plants.	2.24% Unfavourable no change, 97.76% Unfavourable declining	Large amount of heather die back allowing invasion of <i>Deschampsia flexuosa</i> , lack of heather regeneration, loss of lichen interest.	
Deadman's Grave, Icklingham	Species rich calcareous grassland, rare plants and breeding stone curlews.	14.17% Favourable, 83.8% Unfavourable recovering, 2.03% unfavourable declining	Area is dominated by coarse grasses and species composition is suffering as a result.	
Wangford Warren and Carr	Best preserved active sand dune system in Breckland interspersed with fen and grass heath areas, rare plants.	77.35% Unfavourable recovering, 22.65% Favourable	Drainage, inappropriate water levels, water abstraction, under-grazing, inappropriate scrub control and inappropriate cutting/mowing in some areas.	
Lakenheath Warren	Largest heathland site remaining in Suffolk Breckland, contains full range of Breck grass-heath types, rare plants. Rare birds inc. nightjar.	1.62% Favourable, 98.38% Unfavourable recovering	Site under-grazed	Recovering following management activities.
RAF Lakenheath (NB. this site is only part of the Breckland SAC not the SPA as well)	Species-rich Breckland grassland, rare plants. Rare invertebrates.	100% Favourable		
Rex Graham SAC	Rare plants inc. largest wild population of Military Orchids in UK.	100% Favourable		Managed by Suffolk Wildlife Trust.
Devils Dyke SAC (on FH boundary)	Species-rich chalk grassland, rare invertebrates.	49.57% Favourable, 23.43% Unfavourable recovering, 27%	Under-grazing and inappropriate scrub control in some units.	

		Unfavourable no change		
Fenland SAC (Outside FH) Components: Chippenham Fen (Ramsar, SSSI) and Wicken Fen (Ramsar, SSSI). Details below. Woodwalton Fen (Ramsar, SSSI) is also part of the Fenland SAC but is outside of the 20km area of search, therefore details are not included for this site.	Annex I habitats: Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>), Calcareous fens with <i>Cladium mariscus</i> and species of <i>Caricion davallianae</i> Annex II species: Spined Loach (<i>Cobitis taenia</i>), Great Crested Newt (<i>Triturus cristatus</i>)		Some problems with inappropriate water levels in some SSSI units.	
Chippenham Fen SSSI (outside FH)	Wetland habitats and associated birds and insects. Areas of tall and often rich fen, fen grassland and basic flush. Site also contains calcareous grassland, neural grassland, woodland, mix scrub and open water. Rare plants, birds and invertebrates.	72.65% Favourable, 27.35% Unfavourable recovering		
Wicken Fen SSSI (outside FH)	One of the best surviving examples of East Anglian peat fen. Rare plants and invertebrates.	47.08% Favourable, 52.92% Unfavourable recovering	Inappropriate water levels.	
Ouse Washes SPA/SAC/RAMSAR (Outside FH)	Declines in most species of breeding waders (except redshank) and	SSSI conditions: 15.56% Favourable, 80.87% Unfavourable no change,	Neutral grassland-inappropriate summer water levels and water	Long term tidal strategy-regular problems summer flooding- severe

	<p>wildfowl. Increasing wintering wildfowl and wader numbers to 2005/6.</p> <p>Annex II Species: Spined Loach (<i>Cobitis taenia</i>).</p>	3.57% unfavourable recovering	<p>pollution. Watercourses fail to meet total 0.1mg/l phosphorus target. Vegetation change from changing hydrological regime and high nutrient status of receiving water causing eutrophication. Increases in spring and summer flooding and depth of water flooding. Saline intrusions, turbidity and sediment levels. Increased phosphates from new discharges.</p>	<p>siltation of Great Ouse River. Discharges to River Lark, River Little Ouse (and various other smaller water courses in Forest Heath) could drain into Great Ouse River and to Ouse Washes SPA/SAC. Large land holdings by RSPB, Cambridgeshire Wildlife Trust and Wetlands and Wildfowl Trust.</p>
<p>The Wash SPA/RAMSAR (Outside FH)</p>	<p>The whole area is of exceptional biological interest. The intertidal mudflats and saltmarshes represent one of Britain's most important winter feeding areas for waders and wildfowl outside of the breeding season. Enormous numbers of migrant birds, of international significance, are dependent on the rich supply of invertebrate food. The saltmarsh and shingle communities are</p>	<p>SSSI conditions: 67.98% Favourable, 31.58% Unfavourable recovering, 0.44% Unfavourable declining</p>	<p>Coastal squeeze.</p>	

	of considerable botanical interest and the mature saltmarsh is a valuable bird breeding zone. In addition the Wash is also very important as a breeding ground for Common seals.			
The Wash and North Norfolk Coast SAC (Outside FH)	<p>Annex I habitats: Sandbanks slightly covered by sea water all the time; mudflats and sandflats not covered by sea water at low tide; large shallow inlets and bays; reefs; <i>Salicornia</i> and other annuals colonising mud and sand; Atlantic salt meadows (<i>Glaucopuccinellietalia maritima</i>); Mediterranean and thermo-Atlantic halophilous scrubs (<i>Sarcocornetea fruticosi</i>); coastal lagoons.</p> <p>Annex II species: Common seal (<i>Phoca vitulina</i>); Otter (<i>Lutra lutra</i>)</p>	<p>SSSI conditions: North Norfolk Coast: 99.40% Favourable, 0.6% Unfavourable recovering.</p> <p>The Wash: 67.98% Favourable, 31.58% Unfavourable recovering, 0.44% Unfavourable declining</p>		
Chippenham Fen RAMSAR (Outside FH)	Criterion 1: Spring-fed calcareous basin mire	72.65% Favourable, 27.35% Unfavourable		

	<p>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 vegetation types, rare and scarce plants. The site is the stronghold of Cambridge milk parsley (<i>Selinum carvifolia</i>).</p>	recovering		
<p>Wicken Fen RAMSAR (Outside FH)</p>	<p>Criterion 1: One of the most outstanding remnants of the East Anglian peat fens. The area is one of the few which has not been drained. Traditional management has created a mosaic of habitats from open water to sedge and litter fields. Criterion 2: The site</p>	<p>47.08% Favourable, 52.92% Unfavourable recovering</p>	<p>Inappropriate water levels.</p>	

	supports one species of British Red Data Book plant, fen violet (<i>Viola persicifolia</i>), which survives at only two other sites in Britain. It also contains eight nationally scarce plants and 121 British Red Data Book invertebrates.			
--	--	--	--	--

Data from Natural England website (www.naturalengland.gov.uk) and JNCC website (www.jncc.gov.uk) updated 29th May 2012

4. Is it necessary to proceed to the next HRA stage? Which aspects of the Single Issue Review require further assessment?

To establish if the 'Review' is likely to have a significant adverse effect on any European sites it is necessary to consider evidence contained in the HRA of the Forest Heath Core Strategy DPD produced in March 2009. The original Core Strategy HRA presented a number of important factors which need to be assessed and considered as part of the screening process for the Single Issue Review. These factors are set out below:

- Zones of Constraint for built development, (400m Woodlark and Nightjar; 1,500m Stone Curlew and 1,500m Stone Curlew nesting), (direct and indirect effects),
- Atmospheric pollution from roads, (200m SAC zone of constraint),
- Water quality and waste water discharge,
- Water supply,
- Recreational disturbance,

In terms of Policy CS7 specifically, the HRA, (March 2009, p.23), identified the likely significant effects as:

- Potential reduction in the density of Habitats Directive I bird species for which a negative relationship has been shown to exist with housing density (stone curlews, nightjars and woodlarks);
- Potential reduction in the density of stone curlews due to their avoidance of roads;
- Increased levels of recreational activity resulting in increased disturbance to Annex I ground nesting bird species sensitive to disturbance (stone curlew, nightjar and woodlark) in the Breckland SPA;
- Increased levels of people, resulting in an increase in urban effects, such as fire risk, fly tipping, trampling etc., on heath-land sites;
- Increased water abstraction requirements to meet the additional water supply needs; and,
- Increased water discharges to meet the additional waste water treatment needs.

One of the most important factors identified in the Core Strategy HRA is the disturbance of Annex 1 bird species by built development. The Breckland SPA is designated for three bird species, Stone Curlew, (*Burhinus oedicnemus*); Woodlark, (*Lullula arborea*) and Nightjar (*Caprimulgus europaeus*), research indicates that these species are adversely affected by built development and new built development in certain areas could have a significant adverse effect on populations of these species and therefore on the integrity of the Breckland SPA. This research has led to the inclusion of zones of constraint within the Core Strategy in which built development is restricted unless it can be established through project level assessment that no significant adverse impact will be had on the integrity of the SPA. These zones extend 1,500m from SPA components supporting stone curlew and 400m from SPA components supporting woodlark and nightjar, also a zone extends 1,500m from any 1km grid squares which are known to have supported 5 or more nesting attempts by stone curlew since 1995.

Atmospheric pollution was also identified as having the potential to have significant adverse effects on European sites, with the most important type of pollution identified as the pollution of heathland SAC sites by airborne nitrogen from vehicle emissions. Research indicates that a significant adverse effect on these types of sites is detectable up to 200m from the source, therefore Core Strategy policy includes a zone of constraint of

200m around all such SAC sites in the District. No new roads or road improvements which will significantly increase traffic levels will be promoted in these zones.

The Core Strategy HRA identified several issues with water quality and waste water discharge related to the growth proposed in the District. The Waste Water Treatment Works, (WWTW), at Lakenheath, (serving Lakenheath), and Tuddenham, (serving Red Lodge), have limited capacity to accommodate new development. In Lakenheath it is estimated that total the Dry Water Flow (DWF) at 2031 will be within 10% of the current volumetric consent based on proposed growth levels and this situation will require careful monitoring by the responsible authorities. The WWTW at Tuddenham will need to be upgraded prior to reaching its DWF consent sometime in the period 2020 to 2025. Based on the current calculated DWF, it is estimated that the growth proposed in the Brandon WWTW catchment will exceed the current volumetric discharge consent by 2020. The additional Brandon growth, subject to the provision of the relief road, would cause this consent to be exceeded by 2015.

In terms of water supply, the assessment of the demands of increased water supply as a result of the development proposed for the District through the Core Strategy concluded that there is only very limited risk of increased water demand causing adverse effects on European sites.

Recreational disturbance can have significant adverse effect on Annex 1 bird species, the Core Strategy HRA identified that whilst the increased access levels would be relatively low, it could not be ascertained that the predicted low levels of increase would not have an adverse effect. Various measures have been identified to mitigate the potential impacts of recreational disturbance.

4.1 Screening of the Single Issue Review

The Single Issue Review will consider the quantum, distribution and phasing of housing development across the District. The same factors that required the Core Strategy to progress to Appropriate Assessment stage remain valid and for this reason the 'Review' must also progress to Appropriate Assessment regardless of the existing mitigation measures contained elsewhere in the adopted Core Strategy DPD. There is clearly the potential for the revised policy CS7 to result in an adverse effect on a site of European nature conservation importance for the reasons outlined in the March 2009 HRA, namely:

- Potential reduction in the density of Habitats Directive I bird species for which a negative relationship has been shown to exist with housing density, (stone curlews, nightjars and woodlarks);
- Potential reduction in the density of stone curlews due to their avoidance of roads;
- Increased levels of recreational activity resulting in increased disturbance to Annex I ground nesting bird species sensitive to disturbance, (stone curlew, nightjar and woodlark), in the Breckland SPA;
- Increased levels of people, resulting in an increase in urban effects, such as fire risk, fly tipping, trampling etc., on heath-land sites;
- Increased water abstraction requirements to meet the additional water supply needs; and,
- Increased water discharges to meet the additional waste water treatment needs.