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# Habitat Regulations Assessment of the Stratford-on-Avon Core Strategy

## **Proposed Submission Version of the Core Strategy**

April 2014



LEPUS CONSULTING



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LANDSCAPE ECOLOGY, PLANNING AND URBAN SUSTAINABILITY

# Habitats Regulations Assessment of the Stratford-on-Avon Core Strategy

HRA Screening of the Proposed Submission Version

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<b>Prepared by</b>	Neil Davidson, Technical Director, Lepus Consulting
<b>Reviewed by</b>	Andrew McPherson, Principal Consultant, Lepus Consulting

Front Cover Image: River Alne at Wootton Wawen

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## Abbreviations

<b>CIL</b>	Community Infrastructure Levy
<b>DEFRA</b>	Department for Environment, Food, and Rural Affairs
<b>JNCC</b>	Joint Nature Conservation Committee
<b>LNR</b>	Local Nature Reserve
<b>LPA</b>	Local Planning Authority
<b>NPPF</b>	National Planning Policy Framework
<b>NE</b>	Natural England
<b>SAC</b>	Special Area of Conservation
<b>SANG</b>	Suitable Alternative Greenspace
<b>SDC</b>	Stratford-on-Avon District Council
<b>SDCS</b>	Stratford-on-Avon District Core Strategy
<b>SNH</b>	Scottish Natural Heritage
<b>SPA</b>	Special Protection Area
<b>SSSI</b>	Site of Special Scientific Interest
<b>WCS</b>	Water Cycle Study
<b>(d)WRMP</b>	(draft) Water Resource Management Plan
<b>WwTW</b>	Waste Water Treatment Works

# Executive Summary

## **E1 Introduction**

E1.1 This report has been prepared under the requirements of the Habitats Regulations 2010 to assess the effects of development proposals associated with the Stratford-on-Avon Core Strategy, Proposed Submission Version. It has been prepared by Lepus Consulting on behalf of Stratford-on-Avon District Council.

E1.2 The assessment process examines the likely significant effects of policy proposals in the plan on the integrity of European sites of nature conservation importance within, close to or connected to the plan area. European sites are areas of international nature conservation importance that are protected for the benefit of the habitats and species they support.

E1.3 All policy proposals have been assessed.

## **E2 Scope of Assessment**

E2.1 This report is a revisited screening process, which has been prepared on an iterative basis under the HRA Regulations. The first round of screening was prepared in June 2012 and assessed an earlier version of the draft Core Strategy. The report concluded that initial significant adverse effects could be mitigated subject to the revised Core Strategy including suitably worded policies to overcome the identified effects.

E2.2 This report revisits the new policies and provides an assessment of effects under the Habitats and Conservation Regulations 2010.

## **E3 Findings**

E3.1 There are no European sites in the district of Stratford-on-Avon. Of those that have been identified from a 20km area of search and others that have been included through hydrological pathways, none are expected to experience adverse effects from proposals in the Core Strategy. Earlier assessment in June 2012 identified the capacity to treat wastewater as a potential adverse effect. No adverse effects are anticipated as a result of proposals in the plan since other plans (namely the draft Severn Trent Water Resources Management Plan, May 2013 and the draft SDC Water Cycle Study 2014) have addressed the issue of waste water treatment and habitat regulations issues.

## **E4 Conclusions**

E4.1 The Proposed Submission Version of the Core Strategy is not likely to lead to adverse effects on any European sites.

## **E5 Liaison with Natural England**

E5.1 Stratford-on-Avon District Council wishes to share this document with the statutory conservation body in England, Natural England.

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# 1 Introduction

## 1.1 Background

1.1.1 Lepus Consulting is conducting the Habitats Regulations Assessment (HRA) process for the Stratford-on-Avon Core Strategy on behalf of Stratford-on-Avon District Council. This is a requirement of Regulation 102 of the Conservation of Habitats and Species Regulations 2010 (the Habitats Regulations).

1.1.2 Following a screening exercise undertaken by Lepus Consulting in June 2012, the emerging Core Strategy document was assessed under the Habitats Regulations Assessment process. It looked at a number of European and other international sites, based on their geographic proximity and linkage via physiographic conduits such as atmospheric or riverine pathways to the plan area and its proposals.

1.1.3 The following European sites were identified using a 20km area of search around Stratford District including sites which are potentially connected (e.g. hydrologically):

- Bredon Hill SAC;
- Dixton Wood SAC;
- Fens Pools SAC;
- Lyppard Grange Ponds SAC;
- Oxford Meadows SAC;
- Severn Estuary SAC;
- Severn Estuary SPA;
- Severn Estuary Ramsar; and
- Wye Valley SAC.

1.1.4 Six policies were identified as potentially leading to likely significant adverse effects at five European sites. In all cases a range of mitigation measures were suggested. The report concluded that if mitigation proposals were incorporated into the plan, then any residual adverse effects would be overcome.

1.1.5 A further conclusion of the June 2012 screening process included recommendations to amend the policy affecting safeguarding of the water environment to ensure that sufficient processes are in place to protect the water environment with regards to water quality and water resources.

1.1.6 This report refreshes the screening results by revisiting the revised and new content of the latest version of the Core Strategy, the Proposed Submission Version (dated 22 July 2013).

## 1.2 Approach to report preparation

1.2.1 The outputs of this report include information in relation to:

- The HRA process;
- Methodology for HRA;

- Evidence gathering in relation to European sites;
- Understanding vulnerabilities of sites;
- Assessing potential effects of the plan; and
- Conclusions and recommendations.

1.2.2 This report is a screening assessment under the Habitats Regulations to assess the likely significant effects of development proposals in the Core Strategy.

### 1.3 The HRA process

1.3.1 The application of HRA to land-use plans is a requirement of the Conservation of Habitats and Species Regulations 2010, the UK's transposition of European Directive 92/43/EEC *on the conservation of natural habitats and of wild fauna and flora* (the Habitats Directive). HRA applies to all Local Development Documents in England and Wales.

1.3.2 The HRA process assesses the potential effects of a land-use plan against the conservation objectives of any European sites designated for their importance to nature conservation. These sites form a system of internationally important sites throughout Europe and are known collectively as the 'Natura 2000 network'.

1.3.3 European sites provide valuable ecological infrastructure for the protection of rare, endangered or vulnerable natural habitats and species of exceptional importance within the EU. These sites consist of Special Areas of Conservation (SAC), designated under the Habitats Directive and Special Protection Areas (SPA), designated under European Directive 2009/147/EC *on the conservation of wild birds* (the Birds Directive). Additionally, Government policy requires that sites designated under the Ramsar Convention (The Convention on Wetlands of International Importance, especially as Waterfowl Habitat) are treated as if they are fully designated European sites for the purpose of considering development proposals that may affect them.

1.3.4 Under Regulation 102 of the Habitats Regulations, the assessment must determine whether or not a plan will adversely affect the integrity of the European sites concerned. The process is characterised by the precautionary principle. The European Commission describes the principle as follows:

*"If a preliminary scientific evaluation shows that there are reasonable grounds for concern that a particular activity might lead to damaging effects on the environment, or on human, animal or plant health, which would be inconsistent with protection normally afforded to these within the European Community, the **Precautionary Principle** is triggered."*

1.3.5 Decision-makers then have to determine what action/s to take. They should take account of the potential consequences of no action, the uncertainties inherent in scientific evaluation, and should consult interested parties on the possible ways of managing the risk. Measures should be proportionate to the level of risk, and to the desired level of protection. They should be provisional in nature pending the availability of more reliable scientific data.



- 1.3.6 Action is then undertaken to obtain further information, enabling a more objective assessment of the risk. The measures taken to manage the risk should be maintained so long as scientific information remains inconclusive and the risk is unacceptable.
- 1.3.7 The hierarchy of intervention is important: where significant effects are likely or uncertain, plan makers must firstly seek to avoid the effect through for example, a change of policy. If this is not possible, mitigation measures should be explored to remove or reduce the significant effect. If neither avoidance, nor subsequently, mitigation is possible, alternatives to the plan should be considered. Such alternatives should explore ways of achieving the plan's objectives that do not adversely affect European sites.
- 1.3.8 If no suitable alternatives exist, plan-makers must demonstrate under the conditions of Regulation 103 of the Habitats Regulations, that there are Imperative Reasons of Overriding Public Interest (IROPI) to continue with the proposal.

## 1.4 About the Core Strategy

- 1.4.1 The purpose of the Core Strategy is to provide a spatial vision for Stratford-on-Avon District to 2031. The plan sets out a development strategy and planning policies, including the allocation of strategic sites for employment and housing, to guide infrastructure and service provision. This is intended to help to deliver the aims of the area's Sustainable Community Strategy and promote economic prosperity in accordance with the Council's Business and Enterprise Strategy.
- 1.4.2 The Plan includes 28 development policies and 12 allocations policies.

**Table 1.1:** Policies contained in the Core Strategy

<b>Sustainability Framework</b>	
CS 1	Sustainable Development
<b>District Resources</b>	
CS 2	Climate Change and Sustainable Energy
CS 3	Water Environment and Flood Risk
CS 4	Minerals
CS 5	Waste
<b>District Assets</b>	
CS 6	Landscape
CS 7	Natural Environment
CS 8	Green Infrastructure
CS 9	Historic Environment
CS 10	Design and Distinctiveness
<b>District Designations</b>	
CS 11	Green Belt
CS 12	Cotswolds Area of Outstanding Natural Beauty
CS 13	Special Landscape Areas
CS 14	Areas of Restraint
CS 15	Vale of Evesham Control Zone

<b>Development Strategy</b>	
CS 16	Distribution of Development
CS 17	Housing Development
CS 18	Affordable Housing
CS 19	Specialised Accommodation
CS 20	Gypsies and Travellers and Travelling Showpeople
CS 21	Housing Mix and Type
CS 22	Existing Housing Stock and Buildings
CS 23	Economic Development
CS 24	Retail Development and Main Centres
CS 25	Tourism and Leisure Development
<b>Area Strategies</b>	
AS 1	Stratford-upon-Avon
AS 2	Alcester
AS 3	Bidford-on-Avon
AS 4	Henley-in-Arden
AS 5	Kineton
AS 6	Shipston-on-Stour
AS 7	Southam
AS 8	Studley
AS 9	Wellesbourne
NS 1	Gaydon/Lighthorne Heath New Settlement
AS 10	Countryside and Villages
AS 11	Large Rural Brownfield Sites
<b>Infrastructure</b>	
CS 26	Healthy Communities
CS 27	Transport and Communication
CS 28	Developer Contributions

## 1.5 HRA process to date

- 1.5.1 The screening stage of HRA process was prepared in June 2012 and a report published which included recommendations for consideration as part of the next iteration of the Core Strategy.

## 2 Methodology

### 2.1 Guidance and best practice

- 2.1.1 Guidance on HRA has been published in draft form by the Government (DCLG, 2006) and Natural England in conjunction with David Tyldesley Associates (Local Development Plan Documents under the Provisions of the Habitats Regulations, 2009); both draw, in part, on European Union guidance (European Commission, 2001) regarding the methodology for undertaking Appropriate Assessment (AA) of plans.
- 2.1.2 All guidance recognises that there is no statutory method for undertaking HRA and that the adopted method must be appropriate to its purpose under the Habitats Directive and Regulations; this concept is one of the reasons why HRA is often referred to as appropriate assessment.
- 2.1.3 Due to a moratorium on the publication of new guidance as issued by the Government, the draft guidance may not be published. As an alternative, Natural England has suggested that the guidance on HRA published by Scottish Natural Heritage<sup>1</sup> (SNH, 2012) can be used to assess land use plans.
- 2.1.4 For the purposes of this report Habitats Regulations Appraisal and Habitats Regulations Assessment are synonymous.
- 2.1.5 Para 1.3 of the SNH guidance states that “the procedure referred to in this guidance is that of ‘Habitats Regulations Appraisal’ (HRA) which encompasses the requirements of Article 6(3) of the Habitats Directive. The procedure is sometimes referred to as an ‘appropriate assessment’, but this can be confusing because an appropriate assessment is only one particular stage in the process of Habitats Regulations Appraisal. Not all plans undergoing Habitats Regulations Appraisal will reach the stage of appropriate assessment, because some plans would not be likely to have a significant effect on a European site.
- 2.1.6 The term ‘Habitats Regulations Appraisal’ is used here to encompass the decision on whether the plan should be subject to appraisal, the ‘screening’ process for determining whether an ‘appropriate assessment’ is required, as well as any ‘appropriate assessment’ that may be required. It is important to remember that an appropriate assessment is only required where the plan-making body determines that the plan is likely to have a significant effect on a European site in Great Britain, or a European Offshore Marine Site, either alone or in combination with other plans or projects, and the plan is not directly connected with or necessary to the management of the site.

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<sup>1</sup> Scottish Natural Heritage (2012): Habitats Regulations Appraisal of Plans. Guidance for plan making bodies in Scotland. Doc. Ref 1739. Version 2.0, August 2012. Initially prepared by David Tyldesley and Associates.

## 2.2 Habitats Regulations methodology

2.2.1 The HRA process follows the methodology prepared by David Tyldesley Associates for Scottish Natural Heritage (SNH, 2012). A step-by-step methodology is outlined in the guidance and has been summarised in **Figure 2.1**.

2.2.2 A synoptic version of the flow chart is presented in **Table 2.1**. Stage 7 is relevant to this report since previous screening results and recommended mitigation measures are being revisited.

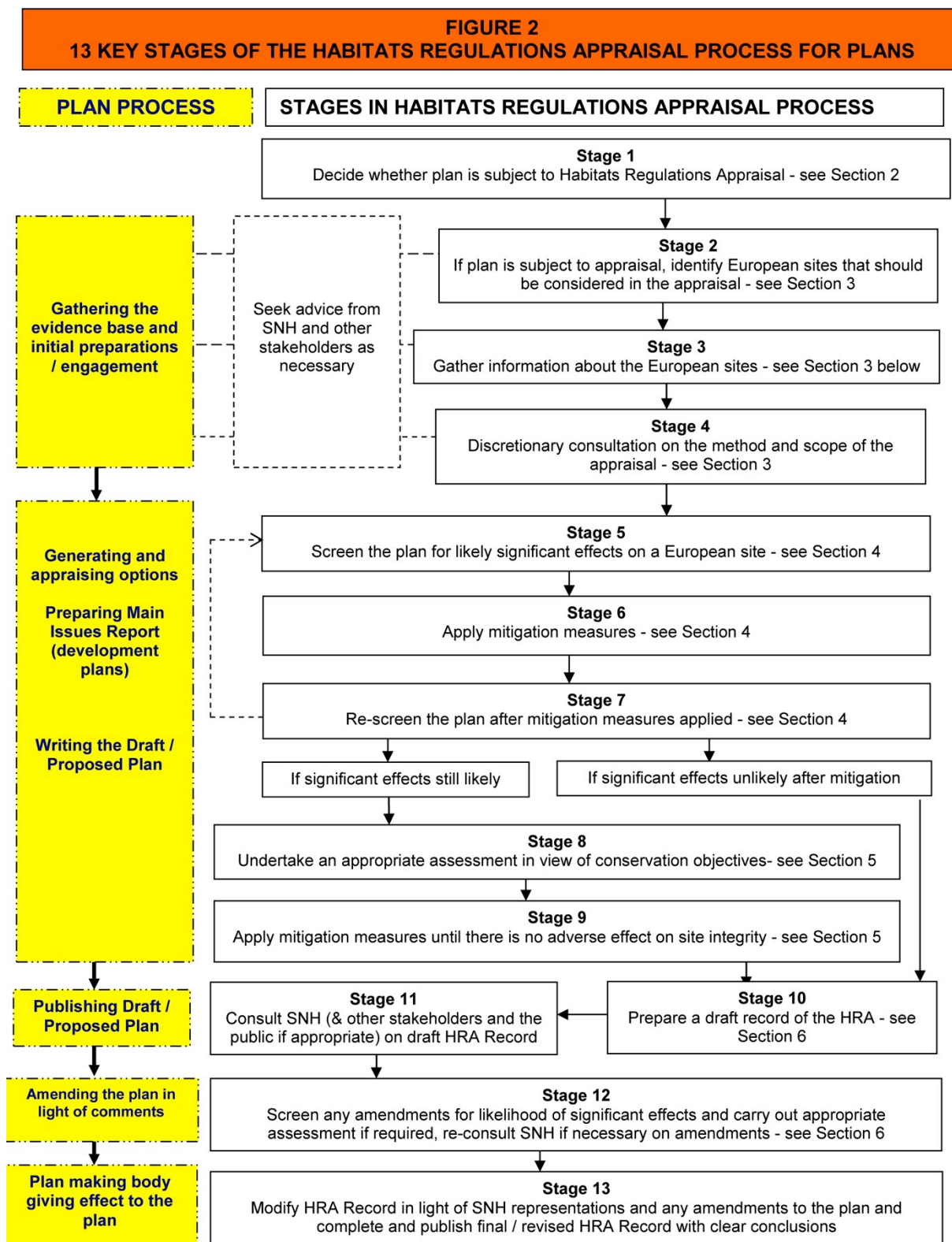
## 2.3 Dealing with uncertainty

2.3.1 The assessment of effects can be affected by uncertainty in a number of ways; some of these are addressed below.

2.3.2 **Regulatory Uncertainty:** Some plans will include references to proposals that are planned and implemented through other planning and regulatory regimes, for example, trunk road or motorway improvements. These will be included because they have important implications for spatial planning, but they are not proposals of the LPA, nor are they proposals brought forward by the plan itself. Their potential effects will be assessed through other procedures. The LPA may not be able to assess the effects of these proposals. Indeed, it may be inappropriate for them to do so, and would also result in unnecessary duplication.

2.3.3 There is a need to focus the Habitat Regulations Assessment on the proposals directly promoted by the plan, and not all and every proposal for development and change, especially where these are planned and regulated through other statutory procedures, which will be subject to a Habitat Regulations Assessment.

2.3.4 **Planning Hierarchy Uncertainty:** The higher the level of a plan in the hierarchy the more general and strategic will be its provisions and therefore the more uncertain its effects will be. Higher plans include regional spatial strategies and lower plans include local and neighbourhood plans. The protective regime of the Directive is intended to operate at differing levels. In some circumstances assessment 'down the line' will be more effective in assessing the potential effects of a proposal on a particular site and protecting its integrity. However, three tests should be applied.



**Figure 2.1:** The 13 Key Stages of the Habitats Regulations Appraisal Process (reproduced from SNH, 2012)

**Table 2.1:** Synoptic version of the flow chart identifying screening and appropriate assessment stages within the HRA process

Group		HRA Stage
Determination of Need and Compilation of Evidence Base	Stage 1	Determination of need
	Stage 2	Identification of European sites that should be considered in the appraisal
	Stage 3	Gathering information on European sites
	Stage 4	Discretionary discussions on the method and scope of the appraisal
Screen all aspects of plan (Screening)	Stage 5	Screening the plan
	Stage 6	Applying mitigation measures at screening stage to avoid likely significant effects
	Stage 7	Rescreen the plan and decide on the need for appropriate assessment
Appropriate Assessment	Stage 8	The Appropriate Assessment – site integrity, conservation objectives and the precautionary principle
	Stage 9	Amending the plan until there would be no adverse effects on site integrity
Consultation of Draft	Stage 10	Preparing a draft of HRA
	Stage 11	Consultation
	Stage 12	Proposed modifications
	Stage 13	Modifying and completing HRA

2.3.5 It will be appropriate to consider relying on the Habitat Regulations Assessments of lower tier plans, in order for a LPA to ascertain a higher tier plan would not have an adverse effect on the integrity of a European site, only where:

A] The higher tier plan assessment cannot reasonably assess the effects on a European site in a meaningful way; whereas

B] The Habitat Regulations Assessment of the lower tier plan, which will identify more precisely the nature, scale or location of development, and thus its potential effects, will be able to change the proposal if an adverse effect on site integrity cannot be ruled out, because the lower tier plan is free to change the nature and/or scale and/or location of the proposal in order to avoid adverse effects on the integrity of any European site (e.g. it is not constrained by location specific policies in a higher tier plan); and

C] The Habitat Regulations Assessment of the plan or project at the lower tier is required as a matter of law or Government policy.

2.3.6 It may be helpful for the Habitat Regulations Assessment of the higher tier plan to indicate what further assessment may be necessary in the lower tier plan.

2.3.7            **Implementation Uncertainty:** In order to clarify the approach where there is uncertainty because effects depend on how the plan is implemented, and to ensure compliance with the Regulations, it may be appropriate to impose a caveat in relevant policies, or introduce a free-standing policy, which says that any development project that could have an adverse effect on the integrity of a European site will not be in accordance with the plan.

2.3.8            This would help to enable the assessors to reasonably conclude, on the basis of objective information, that even where there are different ways of implementing a plan, and even applying the precautionary principle, no element of the plan can argue that it draws support from the plan, if it could adversely affect the integrity of a European site.

## 2.4            **Likely significant effect**

2.4.1            The plan and its component policies are assessed to determine and identify any potential for '**likely significant effect**' upon European sites. The guidance (SNH, 2012) provides the following interpretation.

2.4.2            "A likely effect is one that cannot be ruled out on the basis of objective information. The test is a 'likelihood' of effects rather than a 'certainty' of effects. Although some dictionary definitions define 'likely' as 'probable' or 'well might happen', in the Waddenzee case the European Court of Justice ruled that a project should be subject to appropriate assessment "if it cannot be excluded, on the basis of objective information, that it will have a significant effect on the site, either individually or in combination with other plans and projects". Therefore, 'likely', in this context, should not simply be interpreted as 'probable' or 'more likely than not', but rather whether a significant effect can objectively be ruled out".

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# 3 European Sites

## 3.1 About European sites

- 3.1.1 Each site of European importance has its own intrinsic qualities, besides the habitats or species for which it has been designated, that enables the site to support the ecosystems that it does. An important aspect of this is that the ecological integrity of each site can be vulnerable to change from natural and human induced activities in the surrounding environment. For example, sites can be affected by land use plans in a number of different ways, including the direct land take of new development, the type of use the land will be put to (for example, an extractive or noise emitting use), the pollution a development generates and the resources used (during construction and operation for instance).
- 3.1.2 An intrinsic quality of any European site is its functionality at the landscape ecology scale. This refers to how the site interacts with the zone of influence of its immediate surroundings, as well as the wider area. This is particularly the case where there is potential for developments resulting from the plan to generate water or air-borne pollutants, use water resources or otherwise affect water levels. Adverse effects may also occur via impacts to mobile species occurring outside of a designated site but which are qualifying features of the site. For example, there may be effects on protected birds that use land outside the designated site for foraging, feeding, roosting or loafing.
- 3.1.3 During the screening process, as a starting point to explore and identify which European sites might be affected by the Stratford-on-Avon Core Strategy, a 20km area of search was applied. The guidance (SNH, 2012) specifies no specific size of search area. The inclusion of a specific search area was to facilitate the use of the following list of criteria for identification of European sites. Other sites beyond this zone were also reviewed on the basis that they are connected physiographically.

**Table 3.1:** Criteria for identification of European sites (SNH, 2012)

Selection of European Sites	
Criteria	European Sites to check
All plans	Sites within the plan area, including those for the criteria listed below
For plans that could affect the aquatic environment	Sites upstream or downstream of the plan area in the case of a river or estuary
	Peatland and other wetland sites with relevant hydrological links to land within the plan area, irrespective of distance from the plan area
For plans that could affect mobile species	Sites which have significant ecological links with land in the plan area, for example, land in the plan area may be used by migratory birds, which also use a SPA, outside the plan area, at different times of year
For plans that could increase recreational pressure on European sites potentially vulnerable to such pressure	European sites in the plan area
	European sites within a reasonable travel distance of the plan area boundaries that may be affected by local recreational or other visitor pressure within the plan area (the appropriate distance in each case will need to be considered on its merits, in light of any available evidence)

	European sites within a longer travel distance of the plan area, which are major (regional or national) visitor attractions such as European sites which are National Nature Reserves where public visiting is promoted, sites in National or Regional Parks, coastal sites and sites in other major tourist or visitor destinations (the appropriate distance in each case will need to be considered on its merits, in light of any available evidence)
For plans that would increase the amount of development	Sites that are used for, or could be affected by, water abstraction in or close to the plan area
	Sites used for, or which could be affected by, discharge or effluent from waste water treatment works or other waste management streams serving land in the plan area, irrespective of distance from the plan area
	Sites could be affected by transport or other infrastructure (e.g. by noise or visual disturbance)
	Sites that could be affected by increased deposition of air pollutants arising from the proposals, including emissions from significant increases in traffic
For plans that could affect the coast	Sites in the same coastal 'cell', or part of the same coastal ecosystem, or where there are interrelationships with or between different physical coastal processes

## 3.2 Ecological information

- 3.2.1 **Appendix A** provides conservation objectives for the nine European sites identified following the 20km search. The information is drawn from the Joint Nature Conservancy Council (JNCC) and Natural England (NE).

## 4 Potential Effects

### 4.1 Introduction

4.1.1 The June 2012 screening process identified the following sites for consideration as part of the assessment. Ensor's Pool SAC is assessed as part of this report on the same basis that Fens Pools SAC has been included. These are both water habitats situated just beyond the edge of the 20km search area, which may be affected by the Core Strategy:

- Bredon Hill SAC
- Dixton Wood SAC
- Ensor's Pool SAC
- Fens Pools SAC
- Lyppard Grange Ponds SAC
- Oxford Meadows SAC
- Severn Estuary SAC
- Severn Estuary SPA
- Severn Estuary Ramsar; and
- Wye Valley SAC.

4.1.2 The location of these sites is illustrated in **Figure 4.1**. The map also includes other European sites that are not included in this assessment. They are included for reference only and include Rodborough Common SAC and Cotswold Beeches SAC. Other sites close to the Wye Valley have no labels since it was not practical to show them on the map.

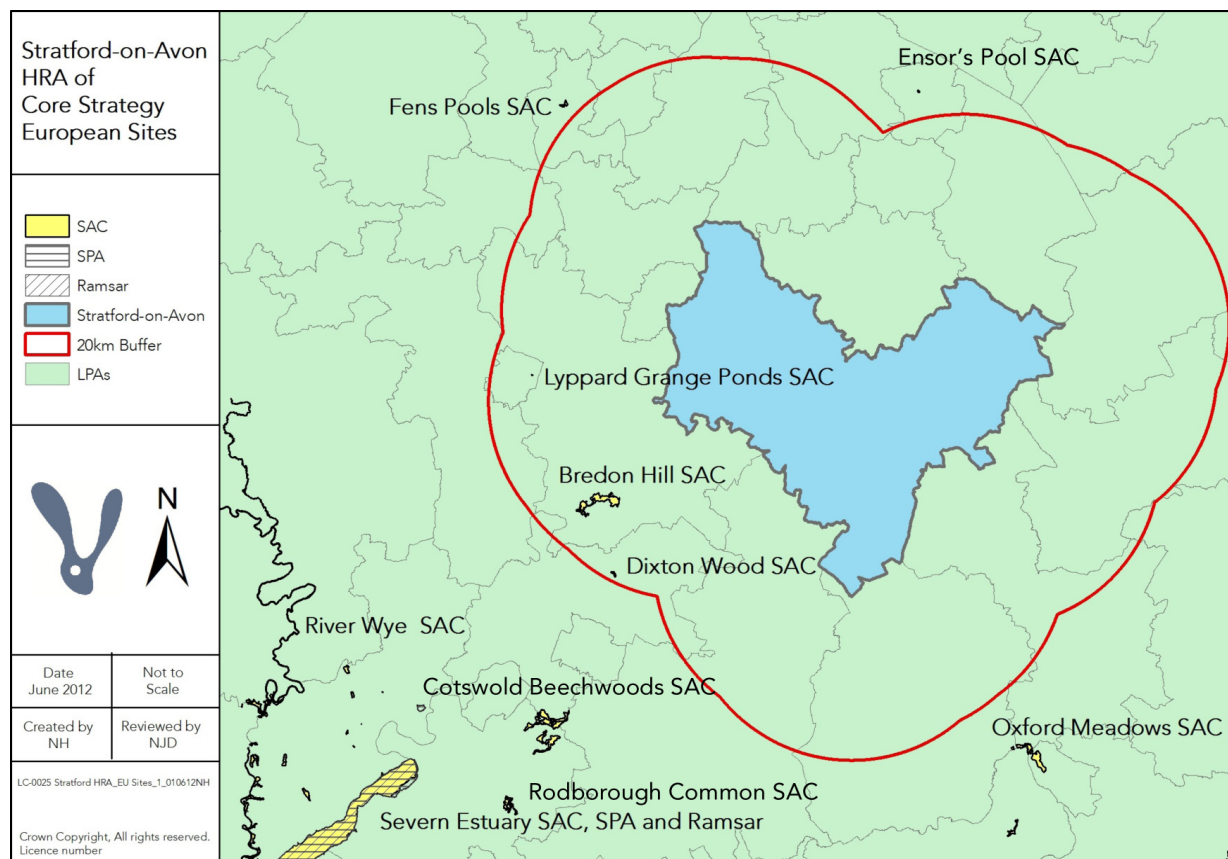
4.1.3 Whilst these sites have previously been screened out, the nature of the Core Strategy has expanded to include strategic allocations that have previously not been screened. This chapter therefore explores in detail, the implications of the HRA at these sites.

### 4.2 Site vulnerabilities

4.2.1 Site vulnerabilities have been derived from various datasets held by the JNCC. SAC and SPA information is held on Natura 2000 Data Forms; Ramsar data is presented on Ramsar Information Sheets. Known vulnerabilities are summarised in **Table 4.1** and discussed in the following sections.

### 4.3 Eutrophication and water abstraction

4.3.1 Eutrophication, or nutrient enrichment, is the enrichment of ecosystems by nitrogen or phosphorus. In water it causes algae and higher forms of plant life to grow too fast. This disturbs the balance of organisms present in the water and the quality of the water concerned. On land, it can stimulate the growth of certain plants which then become dominant so that the natural diversity is lost (see **section 4.5**). The Severn Estuary SAC, SPA, Ramsar sites and the River Wye SAC are vulnerable to eutrophication.



**Figure 4.1:** Map illustrating location of European sites

- 4.3.2 Pollution that originates from a single identifiable source such as a building, store or field, or from a particular event or action, for example, overflow or leakage from a manure store is called “point source pollution”. By contrast “diffuse pollution” comes from fields or many sources within a catchment, which need to be identified and managed.
- 4.3.3 Whilst the two processes are different, they lead to similar vulnerabilities in terms of the impacts on a number of the European sites listed. Eutrophication is associated with run-off from agricultural fields and can lead to dominance of particular species whilst overall biodiversity levels drop. Pollution events can cause eutrophication or cause more widespread destructive effects such as affecting the long-term ability of a wetland or watercourse to recover to a natural state following impact.
- 4.3.4 The Plan is not affecting agricultural management or operations. Effects from agricultural run-off are not discussed further in this report.

- 4.3.5 In terms of effects associated with sewage and wastewater management, these issues have been addressed via the Severn Trent Water Resources Management Plan (WRMP), which covers the Stratford-on-Avon district area. This plan is subject to HRA and will be responsible for ensuring any adverse effects associated with management of water will be addressed before the plan is approved. The latest version is in draft and due for adoption later this year<sup>2</sup>. Severn Trent have confirmed this to be the case via personal communication between Peter Davies and Stratford-on-Avon District Council<sup>3</sup>. The latest draft HRA report is available direct from Severn Trent Water (dated May 2013).
- 4.3.6 The same report addresses abstraction issues; the plan's HRA findings will ensure that no adverse effects will arise or alternatively appropriate mitigation will be prepared. This vulnerability applies only to the River Wye SAC. Severn Trent Water's existing licensed abstraction sources have been reviewed through the Environment Agency's Review of Consents process. The report states that where it could not be concluded that abstractions would have no effects on European site integrity, mitigation measures, known as sustainability reductions, were identified to enable reductions in licence volumes so that the risk posed to designated sites is eliminated. Such measures are included in the draft WRMP and it will help to deliver the licence reductions required to protect European designated sites.
- 4.3.7 Conclusions of the Severn Trent WRMP report are as follows:
- 4.3.8 *"The HRA screening assessment of schemes that were included in the Preferred Programme concluded that, with mitigation taken into account, the Preferred Programme is not likely to have a significant effect on the integrity of any European sites.*
- 4.3.9 *It is also considered unlikely that there would be any in-combination effects from development proposals, Regional Spatial Strategies or other high-level plans. From a review of information within HRAs and SEAs of neighbouring water companies' WRMPs and Drought Plans, the dWRMP is also considered unlikely to have significant in-combination effects.*
- 4.3.10 *It is therefore concluded that Severn Trent Water's dWRMP will have no likely significant effects on European sites and therefore no Appropriate Assessment of the plan is required".*
- 4.3.11 The SDC Water Cycle Study (WCS) update (2014)<sup>4</sup> established that most settlements had wastewater treatment capacity for all planned growth. The WCS concluded that European sites within the District are *"remote from watercourses into which WwTW's (wastewater treatment works) discharge treated effluent"*.

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<sup>2</sup> Consultation of the latest Water Resources Management Plan for Severn Trent (which includes almost all of Stratford-on-Avon) took place in May 2013.

<sup>3</sup> Email correspondence between Peter Davies and Fiona Blundell May 2013.

<sup>4</sup> URS (2014) Stratford-on-Avon District Council Water Cycle Study

- 4.3.12 The WCS concluded that there is sufficient water supply for growth over the plan period, but management of demand is required to ensure longer-term sustainability of water supply in the area. Management of surface water drainage is required to reduce the likelihood of downstream flooding and lowering of water quality.
- 4.3.13 Severn Trent Water's dWRMP and SDC's WCS have both considered water management in the District in relation to the requirements of the Habitats Directive. There will be no likely significant effect of eutrophication and water abstraction on European sites, providing the mitigation suggested in these documents is implemented.
- 4.3.14 Effects arising in conjunction with abstraction and eutrophication from waste water are not discussed further in this document since they have been subject to Habitats Regulations Assessment elsewhere.

## **4.4 Accidental pollution incidents**

- 4.4.1 Accidental pollution incidents are unplanned and can serious long term damage to the ecology of European sites and their features. The five sites vulnerable to this effect are Ensor's Pool SAC, Fens Pools SAC and the Severn Estuary sites. Pollution incidents are dealt with by the Environment Agency. A number of legislative influences including European Directives on water quality and bathing water quality have led to improved water quality levels; pollution incidents are also subject to legal administration and have helped reduce the overall incidence of pollution events.
- 4.4.2 Effects arising in conjunction with accidental pollution events are not discussed further since the Core Strategy is unlikely to introduce or influence pollution inducing activities likely to affect any European site being considered in this report.
- 4.4.3 Pollution that originates from a single identifiable source such as a building, store or field, or from a particular event or action, for example, overflow or leakage from a manure store is called "point source pollution". By contrast "diffuse pollution" comes from fields or many sources within a catchment, which need to be identified and managed.
- 4.4.4 Air quality can be affected by pollution events. Air quality effects impact in two principle ways: via local sources such as being in close proximity to roads and via diffuse pollution in the atmosphere. Power stations and industrial processes are sources of point source pollution. These contribute to diffuse air pollution, as the mechanism by which the pollutants are released (e.g. chimneys) allow pollutant dispersal. Cars in proximity to sites of importance for nature conservation can cause adverse effects up to 200m away from the road in question<sup>5</sup>. None of the European sites in question are within 200m of the plan area, nor are likely to be significantly affected by traffic growth associated with the Core Strategy.

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<sup>5</sup> Highways Agency (2007) Design Manual for Roads and Bridges. Volume 11, Environmental Assessment. Section 3, Part 1, HA 207/07. Annex C: Development of Screening Method

- 4.4.5 In terms of the Core Strategy, direct air quality impacts are not expected to arise from the plan since the Core Strategy includes measures to promote sustainable transport through policies CS.17 “Transport and Communication” and CS.8 “Green Infrastructure”.
- 4.4.6 It is often difficult to accurately predict air pollution effects arising from new homes and employment activities. This is because new development that will require power, for example, from power stations that may or may not contribute to diffuse air pollution. It is easier to record air pollution effects at a local scale, for example that arising from cars. Diffuse pollution is best addressed by managing the effects at source which is the procedure being followed by Environment Agency and policy makers. There are no proposals in the Core Strategy that are likely to contribute directly to diffuse air quality effects. Of note is the inclusion of Core Strategy policy CS.2 Climate Change and Sustainable Energy, which pursues cleaner and more sustainable development.
- 4.4.7 In terms of the Core Strategy, direct air quality impacts are not expected to arise from the plan since the European Sites are not close to the Core Strategy plan area, and the plan includes measures to mitigate the effects of air pollution.
- 4.4.8 In addition to the policy commitments to produce sustainable transport it is recommended that Core Strategy policy CS.17 includes a commitment to monitoring the air quality impact on European nature conservation sites, in order to measure the effectiveness of the policy.
- 4.4.9 Effects arising in conjunction with air quality are not discussed further and with the mitigation being presented by the aforementioned policies is not considered to represent a likely significant impact to European sites.

## **4.5 Habitat Loss**

- 4.5.1 Habitat loss is cited as affected the River Wye SAC (see **Appendix A**). Causes include farm intensification and development. The Core Strategy is not expected to affect the Wye Valley SAC in this way because the site is not within the plan area.

## **4.6 Large man-made interference on site**

- 4.6.1 This is a generic category of influence that can lead to multiple impacts on the Severn Estuary. The estuary is vulnerable to large-scale interference, mainly as a result of human actions. These include land-claim, aggregate extraction, physical developments such as barrage construction and other commercial construction activities, flood defences, industrial pollution, oil spillage and tourism-based activities and disturbance. The Core Strategy is not expected to affect the Severn Estuary sites in this way because the site is not within the plan area.



## 4.7 Introduction of species

4.7.1 Non-native species and other species which change the balance of an ecosystem are cited here to acknowledge that three sites are vulnerable to introduction of species (fish and American Signal Crayfish *Pacifastacus leniusculus*) that can affect Great Crested Newt (*Triturus cristatus*) populations. The Core Strategy is not expected to affect these receptor sites in this way because the site is not within the plan area.

## 4.8 Visitor pressure

4.8.1 Increased access and recreational disturbance are associated with new development. Different recreational uses can affect European sites. Since the proximity of the Core Strategy to any European site is some considerable distance and taking into account the fine array of recreational resources on offer in the district, the Core Strategy is not expected to affect any European sites in terms of recreational pressure.

4.8.2 The nearest part of Bredon Hill SAC is approximately 11km from the eastern boundary of the district. The site has well marked linear access and the value of the site depends on ancient pollards. Were it to exist, visitor pressure is unlikely to adversely affect these important features, as visitors would not alter the ancient pollards.

## 4.9 Lack of new trees

4.9.1 Bredon Hill is an area of pasture woodland and ancient parkland providing habitat for the Violet Click Beetle *Limoniscus violaceus*. The main threats are the lack of a replacement generation of trees for the current ancient trees over much of the hill, as many of the younger trees have been removed to increase stock grazing areas; the overall number of ancient trees suitable for *Limoniscus violaceus* is relatively small. Management agreements are being used to preserve existing tree stocks and to provide replacement planting.

4.9.2 Dixton Wood is an area of broadleaved woodland (formerly partially grazed) with a dominance of ash including exceptionally large ancient pollards. *Limoniscus violaceus* is largely dependent on these pollards (for breeding). Principal risks to the site's integrity are lack of future replacement pollards (age-class skewed to older generation) and game management practices. These issues will be addressed through a Management Agreement with the owner of the site. This will include provision for creation of new pollards as well as management of existing resource to prevent loss through senescence and wind-blow.

4.9.3 Neither site is expected to be affected by proposals in the Core Strategy because the sites are not within the plan area.

## 4.10 In combination effects

4.10.1 Whilst no significant effects have been identified arising from the plan alone, this report has reviewed HRA findings of neighbouring local plans and other development plan documents. HRA results from the following authorities and their plans have been reviewed.

- [Warwickshire County Council, Local Transport Plan](#)



- Warwickshire County Council, Minerals and Waste Management Plan
- Warwick District Council, Local Plan
- Rugby Borough Council, Rugby Local Plan
- Solihull Metropolitan Borough Council, Core Strategy
- Oxfordshire County Council, Local Transport Plan
- West Oxfordshire District Council, Local Plan
- Cherwell District Council, Local Plan
- Northamptonshire County Council, Local Transport Plan
- Northamptonshire County Council, Minerals and Waste Core Strategy
- Daventry and South Northamptonshire Councils, West Northamptonshire Joint Core Strategy
- Gloucestershire County Council, Local Transport Plan
- Gloucestershire County Council, Minerals and Waste Core Strategy
- Cotswold District Council, Local Plan
- Worcestershire County Council, Local Transport Plan
- Worcestershire County Council, Waste Local Plan
- Redditch Borough Council, Local Plan No.4
- Bromsgrove District Council, Bromsgrove District Plan
- Wychavon District Local Plan

4.10.2 The results of this comparison process are presented in **Appendix B**. No in-combination effects are expected to arise.

**Table 4.1:** Vulnerabilities of European sit

Name of international site (date indicates when the standard data form was prepared)	Vulnerability									
	Habitat loss	Eutrophication (water quality)		Water abstraction	Accidental pollution incidents	Lack of new trees	Large scale man-made interference on-site	Ground water levels	Introduction of species	Recreational pressure
		Effluent discharges	Agricultural nutrient enrichment							
Bredon Hill SAC July 2011						x				
Dixton Wood SAC July 2011						x				
Ensor's Pool SAC July 2011					x				x	
Fens Pools SAC July 2011					x				x	
Lyppard Grange Ponds SAC July 2011									x	x
Oxford Meadows SAC July 2011								x		
Severn Estuary SAC		x	x		x		x			x
Severn Estuary SPA		x	x		x		x			x
Severn Estuary Ramsar		x	x				x			x
River Wye SAC July 2011	x	x	x	x						x

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# 5 Conclusions and Recommendations

## 5.1 Assessment findings

5.1.1 This HRA report has carefully considered the effects that might be associated with development as part of the Stratford-on-Avon Core Strategy. Having previously screened an earlier version of the Core Strategy, this report has revisited assessments made during June 2012 and assessed new content in the latest version of the plan.

5.1.2 There are no European sites in the district of Stratford-on-Avon. Of those that have been identified from a 20km area of search and others that have been included through hydrological pathways, none are expected to experience adverse effects from proposals in the Core Strategy. Earlier assessment in June 2012 identified the capacity to treat wastewater as a potential adverse effect. No adverse effects are anticipated as a result of proposals in the plan since other plans (namely the draft Severn Trent Water Resources Management Plan, May 2013) have addressed the issue of wastewater treatment and habitat regulations issues.

5.1.3 The Proposed Submission Version of the Core Strategy is not likely to lead to adverse effects on any European sites either alone or in-combination with other plans. There is no requirement to prepare an appropriate assessment.

## 5.2 Limitations

5.2.1 This report has been prepared using the best available data. References are cited in the text where appropriate.

5.2.2 Other limitations concern habitat and species information for the European sites, which was collected more than two years ago, and in some cases longer than that. Lepus Consulting has collected no primary data in the preparation of this report.

## 5.3 Next steps

5.3.1 This report is subject to comments and review by Natural England as part of the consultation arrangements for the Proposed Submission Version of the Core Strategy.

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# APPENDIX A

European sites: Conservation Objectives (where available from Natural England). \* denotes a priority natural habitat or species

## Bredon Hill SAC

Avoid the deterioration of the qualifying natural habitats and the habitats of qualifying species, and the significant disturbance of those qualifying species, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving Favourable Conservation Status of each of the qualifying features.

Subject to natural change, to maintain or restore:

- The extent and distribution of qualifying natural habitats and habitats of qualifying species;
- The structure and function (including typical species) of qualifying natural habitats and habitats of qualifying species;
- The supporting processes on which qualifying natural habitats and habitats of qualifying species rely;
- The populations of qualifying species;
- The distribution of qualifying species within the site.

Qualifying features:

- *Limoniscus violaceus*; Violet click beetle

## Dixton Wood SAC

Avoid the deterioration of the qualifying natural habitats and the habitats of qualifying species, and the significant disturbance of those qualifying species, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving Favourable Conservation Status of each of the qualifying features.

Subject to natural change, to maintain or restore:

- The extent and distribution of qualifying natural habitats and habitats of qualifying species;
- The structure and function (including typical species) of qualifying natural habitats and habitats of qualifying species;
- The supporting processes on which qualifying natural habitats and habitats of qualifying species rely;
- The populations of qualifying species;
- The distribution of qualifying species within the site.

Qualifying features:

- *Limoniscus violaceus*; Violet click beetle

## Ensor's Pool SAC

Avoid the deterioration of the qualifying natural habitats and the habitats of qualifying species, and the significant disturbance of those qualifying species, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving Favourable Conservation Status of each of the qualifying features.

Subject to natural change, to maintain or restore:

- The extent and distribution of qualifying natural habitats and habitats of qualifying species;
- The structure and function (including typical species) of qualifying natural habitats and habitats of qualifying species;
- The supporting processes on which qualifying natural habitats and habitats of qualifying species rely;
- The populations of qualifying species;
- The distribution of qualifying species within the site.

Qualifying features:

- *Austropotamobius pallipes*; White-clawed (or Atlantic stream) crayfish

### Fens Pools SAC

Avoid the deterioration of the qualifying natural habitats and the habitats of qualifying species, and the significant disturbance of those qualifying species, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving Favourable Conservation Status of each of the qualifying features.

Subject to natural change, to maintain or restore:

- The extent and distribution of qualifying natural habitats and habitats of qualifying species;
- The structure and function (including typical species) of qualifying natural habitats and habitats of qualifying species;
- The supporting processes on which qualifying natural habitats and habitats of qualifying species rely;
- The populations of qualifying species;
- The distribution of qualifying species within the site.

Qualifying features:

- *Triturus cristatus*; Great crested newt

### Lyppard Grange Ponds SAC

Avoid the deterioration of the qualifying natural habitats and the habitats of qualifying species, and the significant disturbance of those qualifying species, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving Favourable Conservation Status of each of the qualifying features.

Subject to natural change, to maintain or restore:

- The extent and distribution of qualifying natural habitats and habitats of qualifying species;
- The structure and function (including typical species) of qualifying natural habitats and habitats of qualifying species;
- The supporting processes on which qualifying natural habitats and habitats of qualifying species rely;
- The populations of qualifying species;
- The distribution of qualifying species within the site.

Qualifying features:

- *Triturus cristatus*; Great crested newt

## Oxford Meadows SAC

Avoid the deterioration of the qualifying natural habitats and the habitats of qualifying species, and the significant disturbance of those qualifying species, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving Favourable Conservation Status of each of the qualifying features.

Subject to natural change, to maintain or restore:

- The extent and distribution of qualifying natural habitats and habitats of qualifying species;
- The structure and function (including typical species) of qualifying natural habitats and habitats of qualifying species;
- The supporting processes on which qualifying natural habitats and habitats of qualifying species rely;
- The populations of qualifying species;
- The distribution of qualifying species within the site.

Qualifying features:

- Lowland hay meadows (*Alopecurus pratensis*, *Sanguisorba officinalis*)
- *Apium repens*; Creeping marshwort

## Severn Estuary SAC & SPA

Comprehensive details of conservation objectives are available in this document: Natural England & the Countryside Council for Wales' advice given under Regulation 33(2)(a) of the Conservation (Natural Habitats, &c.) Regulations 1994, as amended (June, 2009). Conservation objectives for the Severn Estuary SAC and SPA are provided in the form of eight and seven interest features respectively. In the interests of report brevity these have not been reproduced here. For full detail please see: <http://www.severnestuary.net/asera/docs/Regulation%2033%20Advice.pdf>

## Severn Estuary Ramsar

Ramsar site information sheets do not include conservation objectives. Instead they include details about how a particular site meets Ramsar criteria. These have been reproduced here, as has information about noteworthy flora and fauna.

### Ramsar criterion 1

Due to immense tidal range (second-largest in world), this affects both the physical environment and biological communities.

Habitats Directive Annex I features present on the SAC include:

Sandbanks which are slightly covered by sea water all the time

Estuaries

Mudflats and sandflats not covered by seawater at low tide

Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)

### Ramsar criterion 3



Due to unusual estuarine communities, reduced diversity and high productivity.

#### **Ramsar criterion 4**

This site is important for the run of migratory fish between sea and river via estuary. Species include Salmon *Salmo salar*, sea trout *S. trutta*, sea lamprey *Petromyzon marinus*, river lamprey *Lampetra fluviatilis*, allis shad *Alosa alosa*, twaite shad *A. fallax*, and eel *Anguilla anguilla*. It is also of particular importance for migratory birds during spring and autumn.

#### **Ramsar criterion 8**

The fish of the whole estuarine and river system is one of the most diverse in Britain, with over 110 species recorded. Salmon *Salmo salar*, sea trout *S. trutta*, sea lamprey *Petromyzon marinus*, river lamprey *Lampetra fluviatilis*, allis shad *Alosa alosa*, twaite shad *A. fallax*, and eel *Anguilla anguilla* use the Severn Estuary as a key migration route to their spawning grounds in the many tributaries that flow into the estuary. The site is important as a feeding and nursery ground for many fish species particularly allis shad *Alosa alosa* and twaite shad *A. fallax* which feed on mysid shrimps in the salt wedge.

#### **Ramsar criterion 5**

Assemblages of international importance: Species with peak counts in winter:

70919 waterfowl (5 year peak mean 1998/99-2002/2003)

#### **Ramsar criterion 6**

Species/populations occurring at levels of international importance.

Qualifying Species/populations (as identified at designation):

Species with peak counts in winter:

Tundra swan , *Cygnus columbianus bewickii*

Greater white-fronted goose , *Anser albifrons albifrons*

Common shelduck, *Tadorna tadorna*,

Gadwall , *Anas strepera strepera*

Dunlin , *Calidris alpina alpina*

Common redshank , *Tringa totanus totanus*,

Species/populations identified subsequent to designation for possible future consideration under criterion 6.

Species regularly supported during the breeding season:

Lesser black-backed gull , *Larus fuscus graellsii*

Species with peak counts in spring/autumn:

Ringed plover , *Charadrius hiaticula*

Species with peak counts in winter:

Eurasian teal, *Anas crecca*

Northern pintail, *Anas acuta*

Contemporary data and information on waterbird trends at this site and their regional (sub-national) and national contexts can be found in the Wetland Bird Survey report,

which is updated annually. See [www.bto.org/survey/webs/webs-alerts-index.htm](http://www.bto.org/survey/webs/webs-alerts-index.htm).

## River Wye SAC

Avoid the deterioration of the qualifying natural habitats and the habitats of qualifying species, and the significant disturbance of those qualifying species, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving Favourable Conservation Status of each of the qualifying features.

Subject to natural change, to maintain or restore:

- The extent and distribution of qualifying natural habitats and habitats of qualifying species;
- The structure and function (including typical species) of qualifying natural habitats and habitats of qualifying species;
- The supporting processes on which qualifying natural habitats and habitats of qualifying species rely;
- The populations of qualifying species;
- The distribution of qualifying species within the site.

Qualifying features:

- Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche- Batrachion vegetation; Rivers with floating vegetation often dominated by water-crowfoot
- Transition mires and quaking bogs; Very wet mires often identified by an unstable `quaking` surface
- *Austropotamobius pallipes*; White-clawed (or Atlantic stream) crayfish
- *Petromyzon marinus*; Sea lamprey
- *Lampetra planeri*; Brook lamprey
- *Lampetra fluviatilis*; River lamprey
- *Alosa alosa*; Allis shad
- *Alosa fallax*; Twaite shad
- *Salmo salar*; Atlantic salmon
- *Cottus gobio*; Bullhead
- *Lutra lutra*; Otter

# APPENDIX B

In-combination review of neighbouring authorities HRA findings.

Local authority and Plan or Programme	Subjected to HRA	Key issues and sites considered	Potential for in-combination effect with the Stratford on Avon District Core Strategy (SDCS)
<b>Warwickshire County Council</b>			
Local Transport Plan	Yes	<p>Following sites considered:</p> <ul style="list-style-type: none"> <li>• Ensor's Pool SAC within Nuneaton</li> <li>• Bredon Hill SAC</li> <li>• Cannock Extension Canal SAC</li> <li>• Lyppard Grange Ponds SAC</li> <li>• River Mease SAC.</li> </ul> <p>The HRA identified the LTPs role in increasing mobility for recreation as an issue and considered this against each of the sites identified above.</p> <p>The HRA concluded that none of the sites were vulnerable to additional recreational pressure and that the LTP would not give rise to significant effects, alone or in combination.</p>	No - the SDCS is not anticipated to give rise to in-combination effects with the LTP associated with recreational pressure. This is because of the distance from sites and availability of alternative natural greenspaces.
Minerals and Waste Development Framework	Yes	<p>The following sites were considered:</p> <ul style="list-style-type: none"> <li>• Ensors Pool SAC</li> <li>• Bredon Hill SAC</li> <li>• Cannock Extension Canal SAC</li> <li>• Lyppard Grange Ponds SAC</li> <li>• River Mease SAC</li> </ul> <p>The following issues were considered:</p>	No - given the distance of the District to the sites concerned the SDCS will not give rise to in-combination effects associated with the effects identified in the HRA for the Minerals and Waste Development Framework.

Local authority and Plan or Programme	Subjected to HRA	Key issues and sites considered	Potential for in-combination effect with the Stratford on Avon District Core Strategy (SDCS)
		<ul style="list-style-type: none"> <li>• Air quality</li> <li>• Water quality</li> <li>• Water supply and hydrology</li> <li>• Disturbance</li> <li>• Spread of invasive species</li> </ul> <p>The HRA has identified that the policies and proposals set out in the Warwickshire Waste Core Strategy are highly unlikely to have any adverse impact upon the integrity of Natura 2000 sites (which include SACS) either alone or in combination with any other plans.</p>	
<b>Warwick District Council</b>			
Local Plan	Yes	<p>A revised Local Plan is being prepared and HRA was undertaken to inform consideration of options.</p> <p>The HRA considers potential effects on Ensors Pool SAC.</p> <p>The HRA also identifies the potential for effects on European sites in Wales, subject to the sourcing of drinking water in the future.</p> <p>Air pollution and recreational pressure were identified as potential issues at Ensors Pool SAC.</p>	No - given the distance of the SDCS area to the sites concerned it will not give rise to in-combination effects associated with the effects considered in the HRA for the Warwick District Local Plan.
<b>Rugby Borough Council</b>			
Rugby Local Plan	Yes	The following sites were considered:	No - given the distance of the

Local authority and Plan or Programme	Subjected to HRA	Key issues and sites considered	Potential for in-combination effect with the Stratford on Avon District Core Strategy (SDCS)
		<ul style="list-style-type: none"> <li>• Ensor's Pool SAC;</li> <li>• River Mease SAC;</li> <li>• Severn Estuary SCI;</li> <li>• Severn Estuary SPA; and</li> <li>• Severn Estuary Ramsar site.</li> </ul> <p>The following issues were considered:</p> <ul style="list-style-type: none"> <li>• Recreational pressure</li> <li>• Water abstraction</li> <li>• Water quality</li> <li>• Air quality</li> </ul> <p>The HRA concluded that Ensors Pool SAC was a site that was managed and served more as a local recreational resource. Issues around water abstraction and water quality in relation to the Severn Estuary would be managed by Severn Trent through its Water Resource Management Plan.-</p>	SDCS area to the sites concerned it will not give rise to in-combination effects associated with the effects considered in the HRA for the Rugby Local Plan.
<b>Solihull Metropolitan Borough Council</b>			
Core Strategy	Yes	<p>The following sites were screened in:</p> <ul style="list-style-type: none"> <li>• Cannock Extension Canal SAC;</li> <li>• Cannock Chase SAC;</li> <li>• Bredon Hill SAC; and,</li> </ul>	No - given the distance of the SDCS area to the sites concerned it will not give rise to in-combination effects associated with the effects considered in the HRA for the

Local authority and Plan or Programme	Subjected to HRA	Key issues and sites considered	Potential for in-combination effect with the Stratford on Avon District Core Strategy (SDCS)
		<ul style="list-style-type: none"> <li>• Peak District Dales SAC.</li> </ul> <p>The issues considered were recreational pressure and air quality.</p>	Solihull Core Strategy.
<b>Oxfordshire County Council</b>			
Oxfordshire LTP	Yes	<p>The following sites were considered:</p> <ul style="list-style-type: none"> <li>• Cothill Fen SAC</li> <li>• Little Wittenham SAC</li> <li>• Oxford Meadows SAC</li> </ul> <p>The following issues were considered:</p> <ul style="list-style-type: none"> <li>• Air pollution;</li> <li>• Soil changes (caused by road spray, construction dust, use of salt);</li> <li>• Habitat fragmentation or loss;</li> <li>• Invasive species/habitat change;</li> <li>• Water table level changes;</li> <li>• Road drainage impacts on water quality;</li> <li>• Recreation impacts, e.g. trampling, noise disturbance;</li> <li>• Direct kill or wounding of species (collision);</li> <li>• Noise disturbance from vehicles;</li> <li>• Light disturbance from vehicles;</li> <li>• Physical disruption of species flight lines;</li> <li>• Other barrier effects - hindrance to migration or movement of species; and</li> </ul>	No - given the distance of the SDCS area to the sites concerned it will not give rise to in-combination effects associated with the effects considered in the HRA for the Oxfordshire LTP.

Local authority and Plan or Programme	Subjected to HRA	Key issues and sites considered	Potential for in-combination effect with the Stratford on Avon District Core Strategy (SDCS)
		<ul style="list-style-type: none"> <li>Impacts of construction - e.g. dust pollution.</li> </ul>	
<b>West Oxfordshire District Council</b>			
West Oxfordshire Local Plan	Yes	<p>The following sites were considered:</p> <ul style="list-style-type: none"> <li>Oxford Meadows</li> <li>Little Wittenham</li> <li>Cothill Fen</li> <li>River Lambourn</li> <li>Hackpen Hill</li> <li>North Meadow</li> </ul> <p>The following issues were considered:</p> <ul style="list-style-type: none"> <li>recreational pressure</li> <li>air quality</li> </ul>	No - the European sites identified are too distant from the SDCS area to be affected and there are no other potential pathways that might give rise to potential in-combination effects.
<b>Cherwell District Council</b>			
Local Plan	Yes	<p>The following sites were considered:</p> <ul style="list-style-type: none"> <li>Oxford Meadows SAC</li> <li>Cothill Fen SAC</li> <li>Little Wittenham SAC</li> <li>Aston Rowant SAC</li> <li>Chiltern Beechwoods SAC</li> </ul> <p>The Issues considered included air quality and recreational pressure.</p>	No - the European sites identified are too distant from the SDCS area to be affected and there are no other potential pathways that might give rise to potential in-combination effects.
<b>Northamptonshire County Council</b>			



Local authority and Plan or Programme	Subjected to HRA	Key issues and sites considered	Potential for in-combination effect with the Stratford on Avon District Core Strategy (SDCS)
Local Transport Plan	Yes	<p>The following sites were considered:</p> <ul style="list-style-type: none"> <li>• Rutland Water SPA/Ramsar</li> <li>• Barnack Hills and Holes SAC</li> <li>• Upper Nene Valley pSPA/pSAC</li> <li>• Nene Washes SPA</li> <li>• Orton Pit SAC</li> <li>• Woodwalton Fen SAC</li> </ul> <p>The following issues were considered:</p> <ul style="list-style-type: none"> <li>• Potential effects on water quality associated with run off</li> <li>• Potential effects associated with water abstraction</li> <li>• Potential effects associated with recreational pressure on sites</li> <li>• Potential effects associated with air pollution.</li> </ul>	No - the European sites identified are too distant from the SDCS area to be affected and there are no other potential pathways that might give rise to potential in-combination effects.
Minerals and Waste Core Strategy	Yes	<p>The Upper Nene Valley Gravel Pits pSPA was considered in the HRA.</p> <p>The issues considered included:</p> <ul style="list-style-type: none"> <li>• Size and scale</li> <li>• Landtake</li> <li>• Distance from Natura 2000 site or key features of the site</li> <li>• Resource requirements (e.g. water abstraction, etc.)</li> </ul>	No - the European site identified is too distant from the SDCS area to be affected and there are no other potential pathways that might give rise to potential in-combination effects.

Local authority and Plan or Programme	Subjected to HRA	Key issues and sites considered	Potential for in-combination effect with the Stratford on Avon District Core Strategy (SDCS)
		<ul style="list-style-type: none"> <li>• Emissions (disposal to land/water/air)</li> <li>• Excavation requirements</li> <li>• Transportation requirements</li> <li>• Duration of construction, operation, decommissioning,</li> </ul>	
<b>Daventry and South Northamptonshire Councils</b>			
West Northamptonshire Joint Core Strategy	Yes	<p>The following sites were considered:</p> <ul style="list-style-type: none"> <li>• Portholme SAC</li> <li>• Oxford Meadows SAC</li> <li>• Ensor's Pool SAC</li> <li>• Rutland Water SPA/Ramsar</li> <li>• Upper Nene Gravel Pits pSPA and pRamsar</li> </ul> <p>The following issues were considered:</p> <ul style="list-style-type: none"> <li>• Loss of supporting habitat through land-take</li> <li>• Water supply</li> <li>• Water quality</li> <li>• Recreational pressure</li> <li>• Light pollution</li> <li>• Air pollution</li> </ul>	No - the European sites identified are too distant from the SDCS area to be affected and there are no other potential pathways that might give rise to potential in-combination effects.
<b>Gloucestershire County Council</b>			
LTP3	Yes	<p>The following sites were considered:</p> <p>Severn Estuary SAC</p>	No - the European sites identified are too distant from the SDCS area to be affected and there are no

Local authority and Plan or Programme	Subjected to HRA	Key issues and sites considered	Potential for in-combination effect with the Stratford on Avon District Core Strategy (SDCS)
		<p>Severn Estuary Ramsar  Severn Estuary SPA  Wye Valley and Forest of Dean Bat Sites SAC  Cotswold Beechwoods SAC  Rodborough Common SAC  North Meadow and Clattinger Farm SAC  The following issues were considered:</p> <ul style="list-style-type: none"> <li>• Habitat loss</li> <li>• Noise</li> <li>• Air quality and dust</li> <li>• Recreation</li> <li>• Light pollution</li> <li>• Impact on flight lines</li> </ul>	<p>other potential pathways that might give rise to potential in-combination effects.</p>
Minerals and Waste Core Strategy	Yes	<p>The following sites were considered:</p> <ul style="list-style-type: none"> <li>• Rodborough Common SAC</li> <li>• Dixton Wood SAC</li> <li>• Wye Valley &amp; Forest of Dean Bat Sites SAC</li> <li>• River Wye SAC</li> <li>• Wye Valley Woodlands SAC</li> <li>• North Meadow &amp; Clattinger Farm SAC</li> <li>• Cotswold Beechwoods SAC</li> <li>• Bredon Hill SAC</li> <li>• Walmore Common SPA and Ramsar</li> <li>• Severn Estuary SAC, SPA and Ramsar</li> </ul>	<p>No - the European sites identified are too distant from the SDCS area to be affected and there are no other potential pathways that might give rise to potential in-combination effects.</p>

Local authority and Plan or Programme	Subjected to HRA	Key issues and sites considered	Potential for in-combination effect with the Stratford on Avon District Core Strategy (SDCS)
		<ul style="list-style-type: none"> <li>• Avon Gorge Woodlands SAC</li> </ul> The issues considered were: <ul style="list-style-type: none"> <li>• Land take</li> <li>• Air pollution/dust</li> <li>• Water quality</li> <li>• Abstraction</li> <li>• Disturbance</li> </ul>	
<b>Cotswold District Council</b>			
Local Plan	Yes	The following sites were considered: <ul style="list-style-type: none"> <li>• Severn Estuary SAC/SPA and Ramsar</li> <li>• North Meadow and Clattinger Farm SAC</li> <li>• Rodborough Common SAC</li> <li>• Cotswold Beechwoods SAC</li> <li>• Dixton Wood SAC</li> <li>• Bredon Hill SAC</li> </ul> The following issues were considered: <ul style="list-style-type: none"> <li>• Physical loss of habitat</li> <li>• Noise, vibration and light pollution</li> <li>• Air pollution</li> <li>• Recreation</li> <li>• Water quality and quantity</li> </ul>	No - the European sites identified are too distant from the SDCS area to be affected and there are no other potential pathways that might give rise to potential in-combination effects.
<b>Worcestershire County Council</b>			
LTP3	Yes	The following sites were considered:	No - the European sites identified

Local authority and Plan or Programme	Subjected to HRA	Key issues and sites considered	Potential for in-combination effect with the Stratford on Avon District Core Strategy (SDCS)
		<ul style="list-style-type: none"> <li>• Lyppard Grange Ponds SAC</li> <li>• Bredon Hill SAC</li> <li>• River Clun SAC</li> <li>• Downton Gorge SAC</li> <li>• Wye Valley and Forest of Dean Bat Sites SAC; and</li> <li>• Severn Estuary Ramsar</li> <li>• Dixton Wood SAC</li> <li>• Wye Valley and Forest of dean bat Sites SAC</li> <li>• River Wye SAC</li> <li>• River Clun SAC</li> <li>• Downton Gorge SAC</li> <li>• Fens Pool SAC</li> <li>• Walmore Common SPA</li> <li>• Severn Estuary SPA/SAC and Ramsar</li> </ul> <p>The issues considered included:</p> <ul style="list-style-type: none"> <li>• Water abstraction</li> <li>• Water quality</li> <li>• Recreation</li> <li>• Noise and light pollution</li> <li>• Disruption of flight lines</li> </ul>	<p>are too distant from the SDCS area to be affected and there are no other potential pathways that might give rise to potential in-combination effects.</p>
Waste Local Plan	Yes	<p>The following sites were considered:</p> <ul style="list-style-type: none"> <li>• Lyppard Grange Ponds SAC</li> <li>• Bredon Hill SAC</li> </ul>	<p>No - the European sites identified are too distant from the SDCS area to be affected and there are no</p>

Local authority and Plan or Programme	Subjected to HRA	Key issues and sites considered	Potential for in-combination effect with the Stratford on Avon District Core Strategy (SDCS)
		<ul style="list-style-type: none"> <li>• Dixton Wood SAC</li> <li>• Fens Pool SAC</li> </ul> <p>The following issues were considered:</p> <ul style="list-style-type: none"> <li>• Water pollution</li> <li>• Disturbance</li> <li>• Land take</li> <li>• Air pollution</li> </ul>	other potential pathways that might give rise to potential in-combination effects.
<b>Redditch Borough Council</b>			
Local Plan	Yes	Bredon Hill SAC	No likely impacts on the SAC site (as a whole in terms of interference with the key relationships that define the function or structure of the site) have been identified resulting from the Redditch Local Plan and no in-combination effects are anticipated.
<b>Bromsgrove District Council</b>			
Bromsgrove District Plan	Yes	<p>The following sites were considered:</p> <ul style="list-style-type: none"> <li>• Fens Pool SAC</li> <li>• Lyppard Grange Ponds SAC</li> </ul> <p>The following issues were considered:</p> <ul style="list-style-type: none"> <li>• Land take/land use change</li> </ul>	The screening assessment has concluded that the implementation of the Bromsgrove District Plan will have no 'likely significant effects' on any Natura 2000 site, alone or in combination with other plans or projects.

Local authority and Plan or Programme	Subjected to HRA	Key issues and sites considered	Potential for in-combination effect with the Stratford on Avon District Core Strategy (SDCS)
		<ul style="list-style-type: none"> <li>• Impact on protected species outside the site</li> <li>• Recreational pressure and disturbance</li> <li>• Water supply</li> <li>• Water quality</li> <li>• Air pollution</li> <li>• Appropriate management</li> <li>• Land take/land use change</li> </ul>	
<b>Wychavon District Council</b>			
Wychavon District Local Plan	(South Worcestershire Development Plan HRA)	<p>The following sites were considered:</p> <ul style="list-style-type: none"> <li>• Bredon Hill SAC</li> <li>• Lyppard Grange SAC</li> <li>• Dixton Woods SAC</li> <li>• Downton Gorge SAC</li> <li>• River Wye SAC</li> <li>• Severn Estuary SAC</li> <li>• Severn Estuary SPA</li> <li>• Severn Estuary Ramsar</li> <li>• Walmore Common SPA</li> <li>• Walmore Common Ramsar</li> </ul> <p>The following issues were considered:</p>	<p>The HRA identified uncertainty in association with potential likely significant effects on water levels and quality at the Severn Estuary sites, Walmore Common sites, Lyppard Grange SAC and River Wye SAC.</p> <p>Current regulatory processes (such as the requirement for abstraction licences) and mitigation included in the South Worcestershire Development Plan HRA result in a conclusion of not significant effects on European sites alone or in-combination.</p>

Local authority and Plan or Programme	Subjected to HRA	Key issues and sites considered	Potential for in-combination effect with the Stratford on Avon District Core Strategy (SDCS)
		<ul style="list-style-type: none"><li>• Air Quality</li><li>• Recreational disturbance</li><li>• Noise and light pollution</li><li>• Water Quality</li><li>• Water supply</li><li>• Land take and habitat loss</li></ul>	



## APPENDIX C

The table below presents a summary of the reasons that Core Strategy policies may, or may not, have a likely significant effect upon European sites. Those policies that were screened out in the initial scoping report (Lepus Consulting, June 2012) were screened out according to screening steps 1, 2 and 3 of the Scottish Natural Heritage guidance (2012), as set out below:

1. General policy statements
2. Projects referred to in, but not proposed by, the plan
3. No likely significant effects on any European site
  - a) Policies intended to protect the natural environment
  - b) Policies which will not themselves lead to development or other change
  - c) Policies which make provision for change but which could have no conceivable effect on a European site because there is not link or pathway between them
  - d) Policies which make provision for change but which could have no significant effect on a European site because any potential effects would be insignificant
  - e) Policies for which effects on any particular European site cannot be identified because the policy is too general

Policy ref	Policy	Result of initial screening	Relevant screening step and comments
<b>Sustainability Framework</b>			
CS 1	Sustainable Development	Screened out	1.
<b>District Resources</b>			
CS 2	Climate Change and Sustainable Energy	Screened out	3.a)
CS 3	Water Environment and Flood Risk	Screened out	3.a) Could be improved by inclusion of water resources and abstraction
CS 4	Minerals	Screened out	3.a)
CS 5	Waste	Screened out	3.d)
<b>District Assets</b>			
CS 6	Landscape	Screened out	3.a)
CS 7	Natural Environment	Screened out	3.a)
CS 8	Green Infrastructure	Screened out	3.a)
CS 9	Historic Environment	Screened out	3.a)
CS 10	Design and Distinctiveness	Screened out	1.
<b>District Designations</b>			
CS 11	Green Belt	Screened out	3.a)
CS 12	Cotswolds Area of Outstanding Natural Beauty	Screened out	3.a)
CS 13	Special Landscape Areas	Not included	3.a)

CS 14	Areas of Restraint	Screened out	3.a)
CS 15	Vale of Evesham Control Zone	Screened out	3.b)
<b>Development Strategy</b>			
CS 16	Distribution of Development	Potential significant effect	3.d) There will be no likely significant effect providing mitigation recommendations are implemented
CS 17	Housing Development	Not included	3.d) There will be no likely significant effect providing mitigation recommendations are implemented
CS 18	Affordable Housing	Screened out	3.b)
CS 19	Specialised Accommodation	Screened out	3.b)
CS 20	Gypsies and Travellers and Travelling Showpeople	Screened out	3.d) There will be no likely significant effect providing mitigation recommendations are implemented
CS 21	Housing Mix and Type	Screened out	3.b)
CS 22	Existing Housing Stock and Buildings	Screened out	3.b)
CS 23	Economic Development	Potential significant effect	3.d) There will be no likely significant effect providing mitigation recommendations are implemented
CS 24	Retail Development and Main Centres	Potential significant effect	3.d) There will be no likely significant effect providing mitigation recommendations are implemented
CS 25	Tourism and Leisure Development	Potential significant effect	3.d) There will be no likely significant effect providing mitigation recommendations are implemented
<b>Area Strategies</b>			
AS 1	Stratford-upon-Avon	Potential significant effect	3.d) There will be no likely significant effect providing mitigation recommendations are implemented
AS 2	Alcester	Potential significant effect	3.d) There will be no likely significant effect providing mitigation recommendations are implemented
AS 3	Bidford-on-Avon	Potential significant effect	3.d) There will be no likely significant effect providing mitigation recommendations are implemented
AS 4	Henley-in-Arden	Potential significant effect	3.d) There will be no likely significant effect providing mitigation recommendations are implemented

AS 5	Kineton	Potential significant effect	3.d) There will be no likely significant effect providing mitigation recommendations are implemented
AS 6	Shipston-on-Stour	Potential significant effect	3.d) There will be no likely significant effect providing mitigation recommendations are implemented
AS 7	Southam	Potential significant effect	3.d) There will be no likely significant effect providing mitigation recommendations are implemented
AS 8	Studley	Potential significant effect	3.d) There will be no likely significant effect providing mitigation recommendations are implemented
AS 9	Wellesbourne	Potential significant effect	3.d) There will be no likely significant effect providing mitigation recommendations are implemented
NS 1	Gaydon/Lighthorne Heath New Settlement	Potential significant effect	3.d) There will be no likely significant effect providing mitigation recommendations are implemented
AS 10	Countryside and Villages	Screened out	Policy will not itself result in any development
AS 11	Large Rural Brownfield Sites	Potential significant effect	3.d) There will be no likely significant effect providing mitigation recommendations are implemented
<b>Infrastructure</b>			
CS 26	Healthy Communities	Screened out	3.a)
CS 27	Transport and Communication	Potential significant effect	3.d) There will be no likely significant effect providing mitigation recommendations are implemented
CS 28	Developer Contributions	Screened out	1.

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© Lepus Consulting Ltd

1 Bath Street Cheltenham Gloucestershire GL50 1YE

T: 01242 525222

E: [enquiries@lepusconsulting.com](mailto:enquiries@lepusconsulting.com)

[www.lepusconsulting.com](http://www.lepusconsulting.com)

**CHELtenham ● LONDON**



Lepus Consulting  
1 Bath Street  
Cheltenham  
Gloucestershire GL50 1YE

t: 0242 525222  
w: [www.lepusconsulting.com](http://www.lepusconsulting.com)  
e: [enquiries@lepusconsulting.com](mailto:enquiries@lepusconsulting.com)