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# Sustainability Appraisal of Potential Strategic Allocations to inform the Stratford-on-Avon Core Strategy

## Final Report

June 2013



LEPUS CONSULTING

LANDSCAPE ECOLOGY, PLANNING AND URBAN SUSTAINABILITY



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# Sustainability Appraisal of 14 Potential Strategic Allocations to inform the Stratford-on-Avon Core Strategy

## Strategic Allocations SA Report

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# Abbreviations

<b>ALC</b>	Agricultural Land Classification
<b>AONB</b>	Area of Outstanding Natural Beauty
<b>AQMA</b>	Air Quality Management Area
<b>BGS</b>	British Geological Survey
<b>EIA</b>	Environmental Impact Assessment
<b>GI</b>	Green Infrastructure
<b>RIGS</b>	Regionally Important Geological Site
<b>SA</b>	Sustainability Appraisal
<b>SEA</b>	Strategic Environmental Assessment
<b>SuDS</b>	Sustainable Urban Drainage Systems
<b>SSSI</b>	Site of Special Scientific Interest
<b>WwTW</b>	Wastewater Treatment Works

# Executive Summary

## Approach to Assessment

E1.1 Lepus Consulting is conducting the Sustainability Appraisal (SA) process for the Stratford-on-Avon Core Strategy. This report presents the results of an appraisal process that has concentrated on 14 strategic sites. Some are located close to each other in the same geographic locality whilst others standalone in different parts of the district. These represent potential strategic sites or allocations which will each be considered for inclusion in the Core Strategy.

E1.2 The assessment process serves to inform the plan. It does not act as a singular determinant of whether or not a particular site should be included in the Core Strategy.

E1.3 The 14 sites are as follows:

- Lighthorne Heath (sites 1 & 2)
- South East Stratford (sites 3 & 4)
- Long Marston Airfield (site 5)
- Sutton Lane, Brailes (site 6)
- East of Moreton in the Marsh (site 7)
- West of Alcester (site 8)
- North of Wootton Wawen (site 9)
- Long Marston Estate (site 10)
- Southam Cement Works (site 11)
- Harbury Estate (site 12)
- South of Bidford on Avon (sites 13 & 14)

## Assessment Methodology

E2.1 The approach to the appraisal has followed the methodology established by the Scoping Report (May, 2011). This is a methodology that uses a checklist of SA Objectives. Each objective is designed to include a subject or topic that is derived from the strategic environmental assessment (SEA) directive. The objectives are necessarily high level. They are designed for use at a district-wide level. The focus of the assessment concentrates on assessing each of the strategic sites in the context of the district.

E2.2 The level of detail that can be used in the assessment process when undertaking sustainability appraisal is distinctly different to that used when preparing an environmental impact assessment under the EIA Directive.

E2.3 The SA has been prepared using available secondary data, much of which is district or countywide. Specific new data for each site has not been collected as part of this project.

E2.4 Each site was visited (where access was possible) to familiarise the assessors with the general location and nature of the site. Site visits were undertaken in May 2013.

## Assessment Findings

- E3.1 The sustainability of the sites varies with no single site performing without some form of predicted adverse effect on the SA Objectives. Two sites appear to perform better than the others: Lighthorne Heath (Sites 1 and 2) and East of Moreton-in-Marsh (Site 7).
- E3.2 In contrast, two sites perform especially poorly in terms of overall sustainability, Brailes (Site 6) and South of Bidford-on-Avon (Sites 13 and 14).
- E3.3 A general observation is that since most of the sites are greenfield and in rural locations, those SA Objectives concerned with the environment performed less well than social and economic SA Objectives.
- E3.4 These findings are very high level and represent a broad interpretation of some of the strategic constraints likely to affect the delivery of sustainable development at each location. The report includes several recommendations for further work on many aspects of various sites.



# 1 Introduction

## 1.1 Background

1.1.1 Lepus Consulting is conducting the Sustainability Appraisal (SA) process for the Stratford-on-Avon Core Strategy. SA is the process of informing and influencing the development of the Core Strategy to maximise the sustainability value of the document. In this context this report should be considered through the on-going evolution of the Core Strategy.

## 1.2 The SA Process

1.2.1 This Strategic Options SA report follows the release of an SA Scoping Report to the Consultation Authorities (the Consultation Authorities comprise English Heritage, Environment Agency and Natural England) during May 2011. The Scoping Report established the assessment methodology for the SA process. Subsequent to the receipt and consideration of responses received, the Scoping Report was updated to take into account comments received and to reflect new information that has recently become available.

1.2.2 Options, or Reasonable Alternatives, are an important phase of plan making as they provide different ways in which the plan can take shape. The exploration of options is a helpful means of shaping and influencing the final format of the Core Strategy. The SA process provides a basis for appraising the effects of each option. It is a requirement of the Strategic Environmental Assessment (SEA) Directive (2001/42/EC) that reasonable alternatives are assessed during the preparation of a plan or programme. Article 5.1 and Annex I (h)) require that:

‘Reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme are identified, described and evaluated’ and give ‘an outline of the reasons for selecting the alternatives dealt with’.

## 1.3 A brief overview of the Stratford-on-Avon Area

1.3.1 The district of Stratford-on-Avon is a large chiefly rural district with a series of market towns distributed evenly across it. Stratford-upon-Avon is the largest town and the district has a population of more than 120,000 (Census 2011). The following characteristics can be attributed to the district.

- A distinctive settlement hierarchy flowing from Stratford-upon-Avon to the market towns (rural centres) and beyond into the many picturesque villages and hamlets;
- Strong rural character which is reflected by vernacular building styles and clearly demarcated field patterns, which include features such as ridge and furrow, old and young hedgerows and undulating landscapes with relief features gently carved by the various water courses which flow across the area;
- Various biodiversity assets which are recognised and prioritised by the Warwickshire, Coventry and Solihull Local Biodiversity Action Plan and include 26 species action plans and 24 habitat action plans. Statutory and non-statutory nature conservation designations form the land use framework to help protect and strengthen biodiversity;
- International cultural associations and historic heritage that can be found from Stratford’s centre outwards across the district. This factor combined with the attractive rural landscapes supports important economic drivers, including tourism;

- Being a lowland district, there are many rivers and canals which include the rivers Alne, Avon, Itchen and Stour, as well as the Stratford-upon-Avon, Grand Union and Oxford Canals. The River Avon and its many tributaries presents a challenge in flood management terms and any new development will follow the findings of the most up to date Strategic Flood Risk Assessment which in turn recommends sequential tests if the site development options relate to Flood Zone 2 or 3.
- In respect of the above bullet point, climate change adaptation features will be a consideration of the policy development work. In particular the recommendations and planning for green infrastructure in this respect will be important;
- Population dynamics that currently include a healthy ageing population may begin to diversify with new housing and growth in the district. Service provision and planning for sustainable communities is important.
- A positive tourism industry that must be recognised as an important socio-economic consideration in the appraisal process. Effects and impacts arising from the setting and type of new development are key factors to consider in the options process.

## 1.4 Strategic sites

1.4.1 The Council has identified 14 sites which have been assessed as part of the SA process for strategic spatial options. These are presented in **Table 1.1**. Mapped information, prepared by the Council, has been included in **Chapter 3**.

**Table 1.1:** Strategic sites included in the assessment process.

Location	Site Number
Lighthorne Heath	1 & 2
South East Stratford	3 & 4
Long Marston Airfield	5
Sutton Lane, Brailes	6
East of Moreton in the Marsh	7
West of Alcester	8
North of Wootton Wawen	9
Long Marston Estate	10
Southam Cement Works	11
Harbury Estate	12
South of Bidford-on-Avon	13 & 14

## 2 Methodology

### 2.1 Approach to the appraisal of the options

2.1.1 The assessment of the strategic options has been prepared using a high level assessment technique. The findings are presented in matrix format and are accompanied by a commentary on identified effects. The matrix is not a conclusive tool. Its main function is to identify at a high level whether or not the proposed options are likely to bring positive, adverse or uncertain effects in relation to the SA Objectives. A benefit of this approach is that the range of strategic site options can be examined, which can be further assessed if necessary, i.e. if negative or uncertain effects are identified. **Table 2.1** shows the key to identifying whether the effects of an option are positive, adverse or uncertain.

**Table 2.1:** Key to the matrix assessment

Key:	
Likely strong positive effect	++
Likely positive effect	+
Neutral/no effect	0
Likely adverse effect	-
Likely strong adverse effect	--
Uncertain effects	+/-

2.1.2 The SA Objectives have been developed through the Plans, Policies and Programmes (PPP) review, the baseline data collection and the key issues identified for the area during the Scoping Review. The SEA topics identified in Annex I (f) of the SEA Directive were one of the key determinants when considering which SA Objectives should be used for appraisal purposes. The SA Objectives seek to reflect each of these influences to ensure the assessment process is robust and thorough.

2.1.3 The SA Objectives included within the SA Framework, and the sustainability theme to which they relate are set out in **Table 2.2**.

2.1.4 Many of the sites would typically qualify for appraisal under the Environmental Impact Assessment (EIA) Directive depending on the overall size, nature and location of the development proposals. The difference between the assessment methodologies of the two processes is worth noting and readers should be aware of it.

2.1.5 SEA<sup>1</sup> concerns the assessment of plans and programmes. These are typically high level in nature and the assessment process needs to be similarly strategic in its application in order to make the process fit for purpose.

2.1.6 To help ensure that the SEA process does not get unduly weighed down in the very many layers of information and detail that could be collected and collated at District or County level, it operates using a strategic baseline for information for the area of the plan. This data is then utilised as a means of measuring impacts and effects with a checklist of SEA Objectives.

<sup>1</sup> The Strategic Environmental Assessment Directive (2001/42/EC) on the assessment of the effects of certain plans and programmes on the environment is usually prepared with Sustainability Appraisal of development plan documents in the UK. The processes are distinct but can be thought of as synonymous with each other.

- 2.1.7 EIA<sup>2</sup> is applied on a project basis and is characterised by detailed primary information that is collected to inform the assessment and ultimately the planning application for which it is being prepared.
- 2.1.8 For the purposes of this SA Report the level of detail available for each site varies between locations but the application of the same SA Objectives as the main assessment tool provides consistency. Wherever limitations to the assessment process are prevailing, a note has been made in the report.

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<sup>2</sup> The EIA Directive (85/337/EEC) has been in force since 1985 and applies to a wide range of defined public and private projects.

**Table 2.2:** SA Framework

	SA Objective
1	Protect, enhance and manage sites, features and areas of archaeological, historical and cultural heritage importance.
2	Protect, enhance and manage the character and appearance of the landscape and townscape, maintaining and strengthening distinctiveness and its special qualities.
3	Protect, enhance and manage biodiversity and geodiversity.
4	Reduce the risk of flooding.
5	Minimise the district's contribution to climate change.
6	Plan for the anticipated levels of climate change.
7	Protect and conserve natural resources.
8	Reduce air, soil and water pollution.
9	Reduce waste generation and disposal, and promote the waste hierarchy of reduce, reuse, recycle/compost, energy recovery and disposal.
10	Improve the efficiency of transport networks by increasing the proportion of travel by sustainable modes and by promoting policies which reduce the need to travel.
11	Reduce barriers for those living in rural areas.
12	Protect the integrity of the district's countryside.
13	Provide affordable, environmentally sound and good quality housing for all.
14	Safeguard and improve community health, safety and wellbeing.
15	Develop a dynamic, diverse and knowledge-based economy that excels in innovation with higher value, lower impact activities.



**Plate 1:** *Enclosed arable landscape at Site 7, East of Moreton-in-Marsh*



**Plate 2:** *Ridge and furrow fields below Brailes near Site 6*



## 3 Site Survey Results

### 3.1 Introduction

3.1.1 Stratford-on-Avon District Council is considering 14 sites for a new settlement or, in the case of Stratford-upon-Avon, an urban extension. Sites one and two are considered as one site, as are sites three and four, 13 and 14.

3.1.2 Each site has been individually assessed against the 15 SA Objectives. This chapter contains the results of the appraisal of the sites. The results can be found in matrix format (**Table 3.1**) that displays whether the site has been assessed positively or negatively against each SA Objective. The matrix is followed by an interpretation of the results.

3.1.3 This chapter concentrates on providing a site by site appraisal narrative such that the description, qualities and constraints of each site are documented. The information includes the summary extract from information provided for each site by the District Council. This is in a tabular format and provides an indication of scale and location.

3.1.4 **Chapter 4** interprets the findings according to overall effect on each of the SA Objectives since these reflect the specific topics<sup>3</sup> of the SEA Directive. Whilst the assessment at this stage of the plan making process seeks to explore effects arising at each site, the assessment process needs to interpret the overall findings in the context of the whole area covered by the Core Strategy i.e. the district, hence the approach taken in **Chapter 4**.

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<sup>3</sup> Appendix 1 (f) of the SEA Directive states that the likely significant effects on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between these factors.

**Table 3.1:** Site assessment results (abbreviations have been used where necessary)

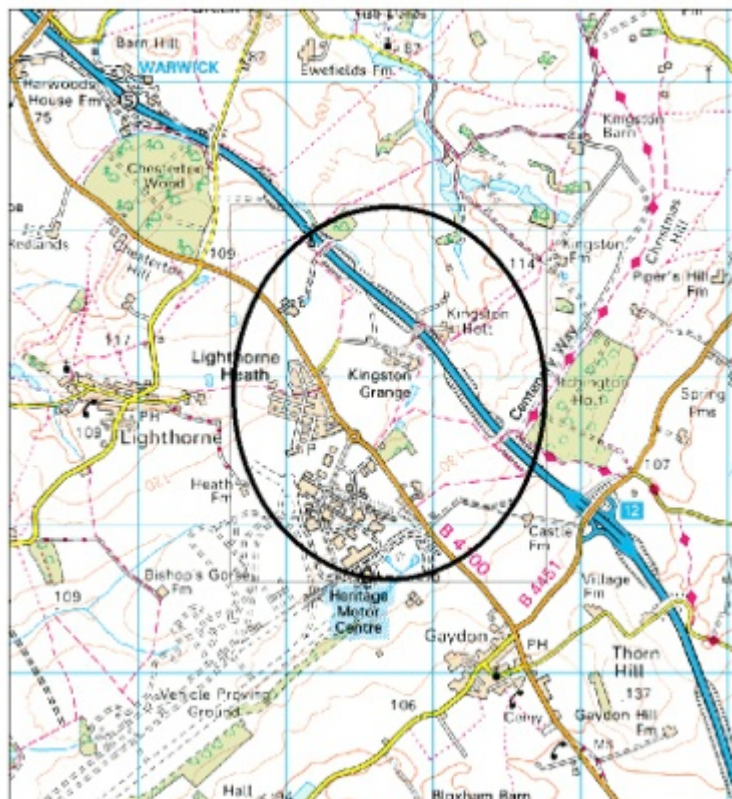
Quick guide to SA Objectives														
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
History, Cultural Heritage	Landscape	Biodiversity	Flood Risk	Climate Change Mitigation	Climate Change Adaptation	Natural Resource	Pollution	Waste	Transport	Rural Barriers	Countryside	Affordable Housing	Health, Wellbeing	Economy

Strategic Location	SA Objectives														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Lighthorne Heath, Gaydon Sites 1 & 2	+/-	+	+	0	-	+	0	+	0	++	+	+	+	+	+
South East Stratford Site 3 & 4	+/-	-	+	0	-	+	--	+/-	0	++	0	+	+	+/-	+
Long Marston Airfield Site 5	+	+/-	+	--	--	+/-	-	-	0	--	++	-	+	+/-	-
Sutton Lane, Brailes Site 6	-	--	-	-	-	-	+/-	-	0	--	+	--	+	-	-
East of Moreton-in-Marsh Site 7	-	+/-	-	0	+	+	0	0	0	+	0	+/-	+	+	+
West of Alcester Site 8	-	-	-	-	+	-	-	0	0	+	0	-	+	+	+
North of Wootton Waven Site 9	--	-	-	0	-	-	0	0	0	+	++	--	+	+	+
Long Marston Estate Site 10	0	+/-	0	0	-	+	0	-	0	--	++	-	+	+	-
Southam Cement Works Site 11	0	-	--	0	-	+	-	0	0	-	++	-	+	+	-
Harbury Estate Site 12	-	-	--	-	-	-	0	0	0	+	+	-	+	+	+
South of Bidford-on-Avon Sites 13 & 14	+/-	-	-	--	--	-	-	-	0	-	0	-	-	0	0



### 3.2 Lighthorne Heath (Sites 1 and 2)

1 & 2	Lighthorne Heath	Approx. 290 hectares	Up to 5,000 dwellings	Open countryside
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**Figure 3.1:** Location Map for Sites 1 and 2, Lighthorne Heath

- 3.2.1 This is a site that directly abuts the busy M40 motorway providing excellent transport links to the national network and employment sites at Birmingham, Warwick and Leamington Spa but increasing the overall likely carbon footprint of any new settlement.
- 3.2.2 The site is characterised by open countryside which ranges in quality according to the diversity of landscape features. These include nearby woodlands (Chesterton Wood) at the northern end of the site and hedgerows. Parts of the landscape are lower quality for example near junction 12 of the M40. The open countryside is affected by the noise from the motorway and tranquility associated with the open landscape is decreased by noise as well. The cutting no doubt helps reduce overall noise impacts from the M40.
- 3.2.3 Land disturbance appears to increase near the motorway verges. The loss of soil resource is likely to be negligible, with estimated low ALC values, and the nature of the countryside character could be enhanced with the right approach to design which must include plenty of trees. There are listed buildings in the vicinity of the site and the setting of these will be a consideration when any development is considered in more detail.

- 3.2.4 The site is long or ribbon in nature. Nearby Chesterton Wood at the north end of the site is an important feature that should be retained and protected. Biodiversity levels are likely to be low in association with the larger arable fields however the woodlands and hedgerows may serve to increase this resource. Much could be done as part of a new development to enhance the green infrastructure provision including creation of more woodland, introduction of water features and planting of a natural noise and landscape barrier that could also function as a wildlife corridor alongside the M40.
- 3.2.5 The built character of Lighthorne Heath lacks distinctiveness and any new settlement here would have the opportunity to introduce enhanced design standards and more traditional built styles that combine with sustainable design.
- 3.2.6 There is a lack of local service provision in the general vicinity of the site. The nearby employment centres of Aston Martin, Jaguar, Land Rover and the Heritage Museum all provide employment opportunities. A further 18ha of employment land will be included at this site, if selected. In terms of transport, there is an overwhelming likelihood that the settlement will be car dependent. Any development here will need to seriously consider short term climate change mitigation effects since in the longer term cars are likely to improve with efficient engines. Four bridleways and a footpath cross the site and the Warwickshire Feldon cycleway passes across the north of the site. This provides useful connections to the wider countryside.
- 3.2.7 Loss of soil at this site (as with all sites) represents a loss of natural resources – an irreversible effect. However if the soil quality is below ALC level 3b, which is likely, this would not be deemed significant.
- 3.2.8 Summary of assessment findings for Lighthorne Heath (Sites 1 and 2):

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
History, Cultural Heritage	Landscape	Biodiversity	Flood Risk	Climate Change Mitigation	Climate Change Adaptation	Natural Resource	Pollution	Waste	Transport	Rural Barriers	Countryside	Affordable Housing	Health, Wellbeing	Economy
+/-	+	+	0	-	+	0	+	0	++	+	+	+	+	+

### 3.3 South East Stratford (Sites 3 and 4)

3 & 4	Off Loxley Road, Stratford-upon-Avon	Approx. 160 hectares	Up to 3,000 dwellings	Edge of Stratford-upon-Avon
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Figure 3.2: Location Map for Sites 3 and 4, South East Stratford

- 3.3.1 This is a large urban extension site. Arable fields dominate the open countryside with some hedgerows forming field boundaries. The lane running between Banbury Road and Loxley Road (see **Figure 3.2**) is very narrow and lined with hedgerows. These would need to be assessed as part of any development proposals. The landscape quality assessment prepared by White Consultants (2011) identified the local landscape to the south of this location as of medium-high importance. Development here would have an adverse effect on this receptor. The river corridor in the north-west section of the town in particular is regarded as high landscape value and is close to a proposed area of landscape constraint. The proposed road would not pass through the zone identified in the landscape sensitivity study but would have an adverse impact on the setting of the high quality landscape when seen from certain view points.
- 3.3.2 The general undulating landscape relief provides good views across the landscape. The landscape quality is medium-high value and could accommodate some new development that is designed sensitively.
- 3.3.3 As with other locations it is difficult to determine archaeological and other cultural heritage that might yet be discovered especially on the edge of historic Stratford. There was little to suggest that the site is especially high in biodiversity value and new development could increase green infrastructure offering.

- 3.3.4 The new relief road will go through the floodplain but it is likely that this may be mitigated with appropriate design and be raised up like the M5 crossing across the same river downstream from this point. The impact on the functional floodplain is likely to be low adverse or negligible and can be mitigated. The footprint of the road will be small in comparison to any attempt to build, for example, housing here.
- 3.3.5 Public transport potential for this site is good and the links in general with nearby Stratford are good. There are bus stops in the town edge along Loxley Road. Cycle lanes are in place to the south of the development. This will help over reliance on car modes of transport. However the new road places a special emphasis on travel by car and this will do little to help the performance of SA Objective 5 (climate change mitigation) in the short term.
- 3.3.6 Stratford is congested and has an AQMA to help overcome some of the adverse air quality effects associated with heavy and congested traffic in the town. A new road crossing will almost certainly help the flow of traffic but without further evidence it is difficult to evaluate if it is in the most sustainable location. Air is important for a number of reasons including health and biodiversity.
- 3.3.7 Minerals are known to be in the area. Sand and gravel deposits have been identified by the BGS (British Geological Society) and are likely to form minerals allocations in the emerging minerals plan. Risk of sterilization is high and should be avoided. These might be a barrier to development in the short term. Another natural resource issue is the loss of soil resource with development in this area.
- 3.3.8 Nearby Stratford can provide jobs but another consideration is the inclusion of employment land at this location if the overall sustainability value is to be optimised. Approximately 8 ha is being considered and this will enable SA Objective 15 to perform well.
- 3.3.9 Summary of assessment findings for South East Stratford (Sites 3 and 4):

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
History, Cultural Heritage	Landscape	Biodiversity	Flood Risk	Climate Change Mitigation	Climate Change Adaptation	Natural Resource	Pollution	Waste	Transport	Rural Barriers	Countryside	Affordable Housing	Health, Wellbeing	Economy
+/-	-	+	0	-	+	--	+/-	0	++	0	+	+	+/-	+

### 3.4 Long Marston Airfield (Site 5)

5	Long Marston Airfield	Approx. 220 hectares	Up to 5,000 dwellings	Open countryside
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Figure 3.3: Location Map for Sites 5, Long Marston Airfield.

- 3.4.1 Long Marston Airfield is located in open countryside and is not near any services or employment sites. It is unsustainable in many respects and performs poorly against the SA Objectives.
- 3.4.2 The airfield is located in an arable landscape and is part greenfield and part brownfield. In terms of environmental receptors that baseline includes open countryside, possibly the AONB, the village of Long Marston, and there is a likelihood of flood risk in parts of the area. Wastewater capacity is at its limit and new development would require new infrastructure. There are no known biodiversity or heritage constraints. Impacts on soil are likely to be negative since there is potential for land to be ALC grade 2.
- 3.4.3 There are limited public transport links with possibly none at the site itself. The nearest services are in Long Marston and include a post office, pub and a church. These could not support the proposed 5,000 new homes. Transport levels, using the car as the primary mode of transport, are likely to increase significantly if a new settlement was to be located here. Associated impacts on SA Objective 5 (climate change mitigation) can be expected. Growth on a scale of 5,000 new homes without confirmed employment included as part of the master plan will lead to adverse effects on traffic and the economy in general.
- 3.4.4 Summary of assessment findings for Long Marston Airfield (Sites 5):

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
History, Cultural Heritage	Landscape	Biodiversity	Flood Risk	Climate Change Mitigation	Climate Change Adaptation	Natural Resource	Pollution	Waste	Transport	Rural Barriers	Countryside	Affordable Housing	Health, Wellbeing	Economy
0	+/-	0	--	--	+/-	-	-	0	--	++	-	+	+/-	-



### 3.5 Sutton Lane, Brailes (Site 6)

<b>6</b>	Sutton Lane, Brailes	Approx. 40 hectares	Up to 500 dwellings	Open countryside
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Figure 3.4: Location Map for Site 6, Brailes Golf Course, Sutton Lane

- 3.5.1 This site is located in attractive countryside amongst the northern part of the nationally important Cotswolds AONB. It performs poorly against SA Objective 1 and 2 for this reason. The network of small fields, which includes ridge and furrow features, and supporting hedgerows are likely to provide a rich source of biodiversity and loss of the golf course will detract from this. Limited flood risk has been identified and the ability to treat wastewater associated with new houses in the area is limited.
- 3.5.2 The road network is based on quiet roads and additional transport associated with a settlement of up to 500 new homes would detract from the area, increase carbon footprint and possible have pollution effects in terms of noise, light and air quality. Roads would need to be widened or new roads introduced.
- 3.5.3 The nearest reasonable service provision is at Shipston as are limited local employment opportunities with the closure of Norgren. Loss of the golf course represents loss of employment and health opportunities.

3.5.4 Summary of assessment findings for Brailes golf course (Site 6):

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
History, Cultural Heritage	Landscape	Biodiversity	Flood Risk	Climate Change Mitigation	Climate Change Adaptation	Natural Resource	Pollution	Waste	Transport	Rural Barriers	Countryside	Affordable Housing	Health, Wellbeing	Economy
-	--	-	-	-	-	-	+/-	0	--	+	--	+	-	-

3.6 East of Moreton-in-Marsh (Site 7)

<b>7</b>	East of Moreton-in-Marsh	Approx. 40 hectares	Up to 700 dwellings	Open countryside
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Figure 3.5: Location Map for Site 7, East of Moreton-in-Marsh

3.6.1 This location is set amongst arable crops with supporting features of hedgerows and some mature trees. The hedges represent a valuable biodiversity and landscape receptor. Loss of arable land would be a loss of natural resources although this is likely to be negligible for land classified as Agricultural Land Classification 3b and due to size. Wolford Wood is a SSSI and therefore of national importance. The landscape is of a good quality but the site is mostly enclosed. There might be adverse effects on the nearby Cotswold AONB. Suitable mitigation in the form of vegetation screening might help in this respect. There are plenty of trees and these should be retained and increased.

3.6.2 Depending on siting and design, the site could be close to grade II listed building 'four shire stone'. There are no known flood risk or minerals issues here.

3.6.3 The location would have a strong relationship with Moreton-in-Marsh (in Cotswold District) for services and jobs. There are established transport links and sustainable modes of transport are a possibility. The nearby Business Village could also support any new settlement here.

3.6.4 Summary of assessment findings for East of Moreton-in-Marsh (Site 7):

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
History, Cultural Heritage	Landscape	Biodiversity	Flood Risk	Climate Change Mitigation	Climate Change Adaptation	Natural Resource	Pollution	Waste	Transport	Rural Barriers	Countryside	Affordable Housing	Health, Wellbeing	Economy
-	+/-	-	0	+	+	0	0	0	+	0	+/-	+	+	+

3.7 West of Alcester (Site 8)

<b>8</b>	West of Alcester	Approx. 120 hectares	Up to 3,000 dwellings	Open countryside
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Figure 3.6: Location Map for Site 8, West of Alcester

- 3.7.1 It was not possible to visit the eastern part of this location. A dual carriageway separates the two sites and is a barrier between new development and the town. Trees screen the eastern site from the dual carriageway. The western part of the site is a large arable expanse. Nearby Alcester has good services and facilities including a Waitrose supermarket and grammar school. The site is generally tucked away in landscape terms. Large amounts of woodland are nearby.
- 3.7.2 The landscape and habitats are of a good quality at this location and would represent a negative effect if development is allocated here. Flood risk is also prevalent. In terms of heritage, Cold Comfort Farm and ancillary buildings is grade II listed so the setting of this designation would need careful mitigation.
- 3.7.3 The dual carriageway is likely to influence the development. Noise and light pollution will increase with new development. Alcester is an important settlement for employment opportunities with the large industrial estate and growing tourism businesses. These could support new homes to some extent and offset the likely high levels of car use.



3.7.4 The area presently provides important green infrastructure functions for the nearby town of Alcester. The isolated nature of this site being divided by a dual carriageway means that overall sustainability performance is generally low. Sand and gravel deposits have been recorded at this location by the BGS. Risk of sterilization affects SA Objective 7.

3.7.5 Summary of assessment findings for West of Alcester (Site 8):

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
History, Cultural Heritage	Landscape	Biodiversity	Flood Risk	Climate Change Mitigation	Climate Change Adaptation	Natural Resource	Pollution	Waste	Transport	Rural Barriers	Countryside	Affordable Housing	Health, Wellbeing	Economy
-	-	-	-	+	-	-	0	0	+	0	-	+	+	+

### 3.8 North of Wootton Wawen (Site 9)

<b>9</b>	North of Wootton Wawen	Approx 60 hectares	Up to 1,000 dwellings	Open countryside
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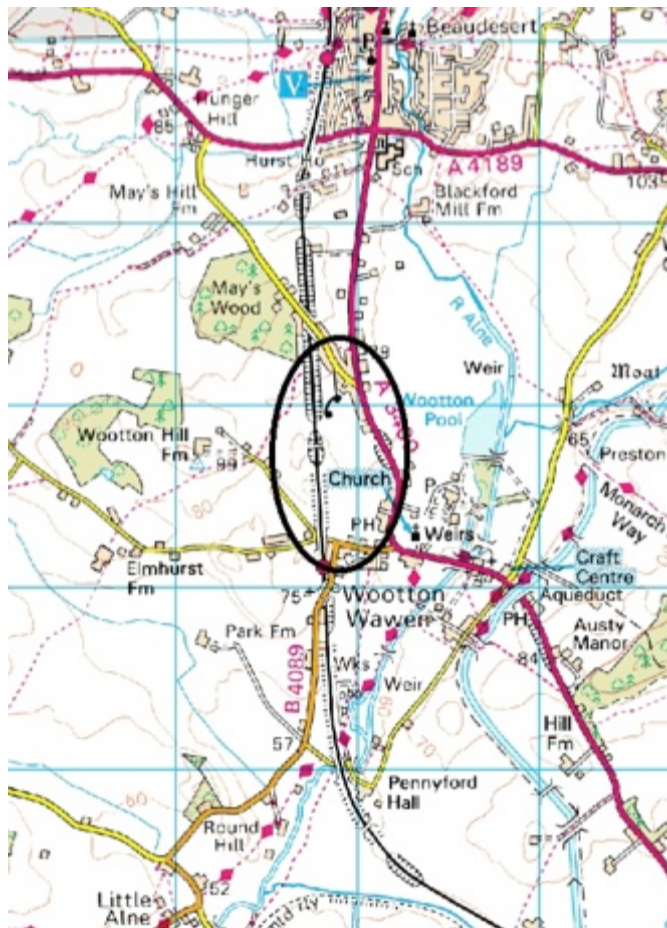


Figure 3.7: Location Map for Site 9, North of Wootton Wawen

- 3.8.1 Wootton Wawen is a scenic location with several environmental receptors including the oldest church in Warwickshire, St Peter's Church, the Saxon Sanctuary. The land surrounding the church is likely to contain important cultural references to English history since at least 900AD. Scheduled ancient monuments and listed buildings are present in the area.
- 3.8.2 Arable fields surround Wootton Wawen and make an attractive landscape setting for the town. It is suspected that up to 1000 new homes would significantly alter the character of the village and increase traffic levels significantly. Hedges and hedgerow trees as well as veteran trees are closely knit around the town and would need further assessment as part of development proposals at this site. The River Alne floods on occasion but the proposed location is outside of any flood risk zone.
- 3.8.3 The primary school and pre-school would be a good resource for new young families. The train station is also a key asset for the village as it would help keep climate change impacts low. Footpaths and other open air access routes are plentiful and these would serve the new inhabitants well. Allotments should be retained or relocated if new development is allocated here.
- 3.8.4 Summary of assessment findings for Wootton Wawen (Site 9):

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
History, Cultural Heritage	Landscape	Biodiversity	Flood Risk	Climate Change Mitigation	Climate Change Adaptation	Natural Resource	Pollution	Waste	Transport	Rural Barriers	Countryside	Affordable Housing	Health, Wellbeing	Economy
--	-	-	0	-	-	0	0	0	+	++	--	+	+	+

### 3.9 Long Marston Estate (Site 10)

<b>10</b>	Long Marston Estate	Approx. 190 hectares	Up to 3,000	Open countryside
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Figure 3.8: Location Map for Site 10, Long Marston Estate

3.9.1 This is a relatively isolated large brownfield site which has potential environmental features that should be retained if found to provide particular functions in terms of biodiversity and landscape. This site could not be visited in detail since it is a former military location. The rural location would be transformed by a large new settlement possibly detracting from the prevailing tranquility of the location.

3.9.2 Baseline information suggests that there is a small chance of flooding during extreme conditions (i.e. 0.1 per cent (1 in 1000) chance of occurring each year). WwTWs are at capacity in the area.

3.9.3 There is a bus route that passes through the area. Route 27 goes through Long Marston. The Sustrans national cycle route (No5) passes close to the site. However development at the order of magnitude of up to 3000 new homes would significantly increase dependency on car travel without significant investment in the public transport infrastructure. There are very few services or employment sites nearby, although there are existing businesses on the site itself.

3.9.4 Summary of assessment findings for Long Marston Estate (Site 10):

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
History, Cultural Heritage	Landscape	Biodiversity	Flood Risk	Climate Change Mitigation	Climate Change Adaptation	Natural Resource	Pollution	Waste	Transport	Rural Barriers	Countryside	Affordable Housing	Health, Wellbeing	Economy
0	+/-	0	0	-	+	0	0	0	--	++	-	+	+	-





**Plate 3:** The southern area of Sites 1 and 2, Lighthorne Heath. Scrubby disturbed landscape above the M40 embankment



**Plate 4:** Arable fields in the western part of the area south east of Stratford (Sites 3 and 4)

### 3.10 Southam Cement Works (Site 11)

11	Southam Cement Works	Approx. 110 hectares	Up to 4,000 dwellings	Open countryside
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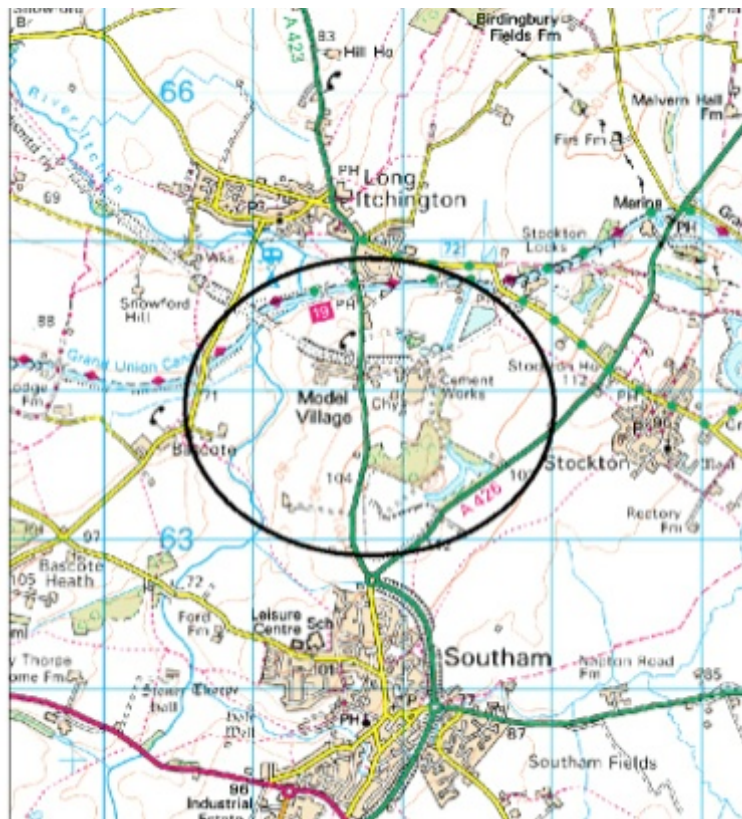


Figure 3.9: Location Map for Site 11, Southam Cement Works

- 3.10.1 This site is enclosed by hedgerows and tall trees hidden from sight. It is located at a quarry site which is still being used to extract minerals. There was no way into the site for a detailed walkover. The surrounding countryside is rolling and attractive, being a mix of grazed and arable land.
  
- 3.10.2 The site is a RIGS designation as well as a local wildlife site. The standing water within the quarry site may be important for feeding birds, amphibians and invertebrates. The site is a mixture of semi-improved calcareous grassland (a BAP priority habitat) and dense/continuous scrub. The surrounding area has various water features including ponds in the village, a stream or small river running through Long Itchington and there is also the canal. There is a disused railway as well. This could contribute to local GI at the site.
  
- 3.10.3 Long Itchington Quarry should be protected and buffered from development. The nearest settlement is Long Itchington and has a few services. Within the vicinity of the site there is a motor garage with a local shop, a diner, a church, a co-op with a post office, and three different public houses.



3.10.4 The rural site is not in proximity to other built development. Roads run along each side of the 'strategic triangle' which may provide the basis of easy access to and from the site. This would probably lead to increased car traffic levels. National cycling route 41 (the Lias line) joins the northern border of the site towards Leamington Spa. A development of 4000 homes at this site would require employment provision to be made as there are limited job opportunities close to the site.

3.10.5 Summary of assessment findings for Southam Cement Works (Site 11):

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
History, Cultural Heritage	Landscape	Biodiversity	Flood Risk	Climate Change Mitigation	Climate Change Adaptation	Natural Resource	Pollution	Waste	Transport	Rural Barriers	Countryside	Affordable Housing	Health, Wellbeing	Economy
0	-	--	0	-	+	-	0	0	-	++	-	+	+	-

### 3.11 Harbury Estate (Site 12)

<b>12</b>	Harbury Estate	Approx 80 hectares	Up to 1,000 dwellings	Open countryside
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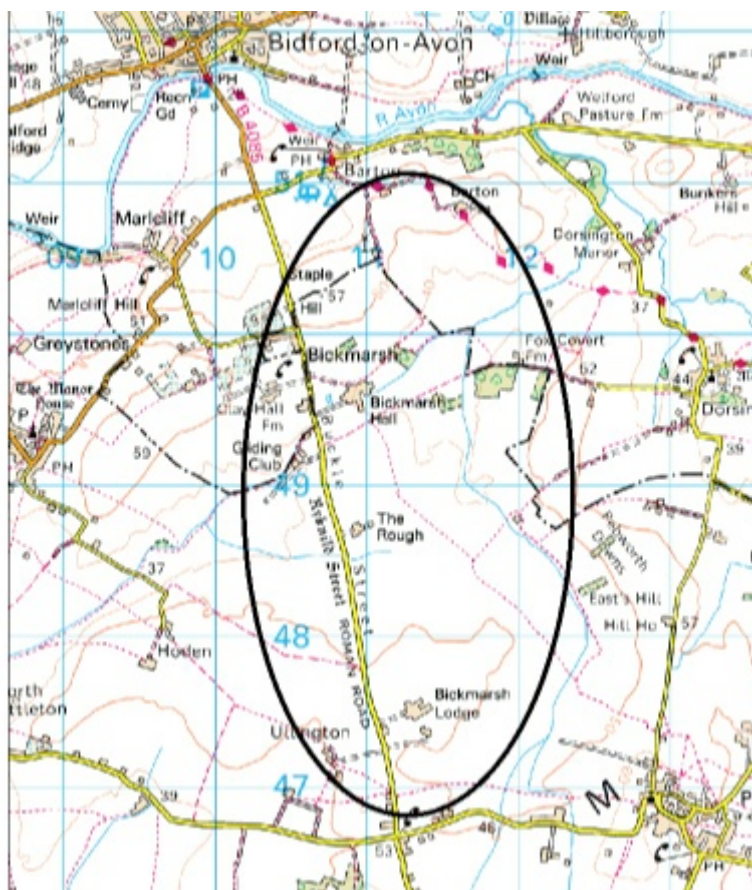
Figure 3.10: Location Map for Site 12, Harbury Estate

- 3.11.1 This large rural site is located north of Bishop's Itchington, a settlement with several important services that could help facilitate new development at this location.
- 3.11.2 It is located in attractive rolling open countryside characterised by mature woodland and hedgerows including a SSSI (Harbury Quarries). There is a small river running along the eastern side of the site which causes fluvial flooding. These features are likely to contribute to good levels of biodiversity. Most of the fields are arable crops with occasional pasture.
- 3.11.3 Besides Bishop's Itchington and nearby Harbury, there are random houses sometimes on their own, sometimes in a small group of four around the site. The architecture is lacking particular definition. There is a listed building called 'The Cottage' at the site and Roman coins have been found previously.
- 3.11.4 Services in the settlement include a primary school, more than one pub, and cafes. To the north of the site are some very large B8 type developments. A railway line runs through the site to the north. An old quarry site has been converted into a coarse fishing centre.
- 3.11.5 The Banbury to Leamington line runs nearby and a new station would enhance the sustainable development prospects of this location. The M40 is also nearby when considering links with the national road network for business opportunities; increased car use is inevitable although bus services could usefully link Southam, Harbury and any new settlement at this location. Cycling routes which link Warwick, Wellesbourne and Leamington Spa are near to Harbury (national route 48).
- 3.11.6 Summary of assessment findings for Harbury Estate (Site 12):

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
History, Cultural Heritage	Landscape	Biodiversity	Flood Risk	Climate Change Mitigation	Climate Change Adaptation	Natural Resource	Pollution	Waste	Transport	Rural Barriers	Countryside	Affordable Housing	Health, Wellbeing	Economy
-	-	--	-	-	-	0	0	0	+	+	-	+	+	+

### 3.12 South of Bidford-on-Avon (Sites 13 and 14)

<b>13 &amp; 14</b>	South of Bidford-on-Avon	Approx. 600 hectares	Up to 5,000 dwellings	Open countryside
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**Figure 3.11:** Location Map for Site 13 and 14, South of Bidford-on-Avon

- 3.12.1 This is a very isolated site set in open countryside and not linked to any settlement. Bidford is the nearest town and the settlement of Barton sits between the site and Bidford.
- 3.12.2 The area is predominantly improved grassland and arable land of low biodiversity value, however the high biodiversity quality of the River Avon should be protected with a buffer zone. The site also includes priority BAP habitat. Soils may be better quality in proximity to the Avon and hence represent a negative effect on SA Objective 7.
- 3.12.3 An area of flood risk runs down the length of the site. Some of this has a significant risk of flooding, other parts have a lower risk, the effect on development will depend on siting, design and mitigation. WwTWs are at capacity in the area.
- 3.12.4 Bus route 28/28a goes from Stratford to Evesham via Bidford; there are no nearby bus stops. Nor are there any cycle routes. Barton Hill provides a tranquil setting amongst attractive local countryside. A site of this size may well have links to archaeological heritage and further exploration would help in this respect. Links with the river may increase the likelihood of the site having associations with cultural heritage.



3.12.5 There has been significant growth in Bidford in recent years and affordable housing is not known to be an issue so new homes at this location would do little to help this SA Objective. Similarly, rural barriers at this site have no particular receptor.

3.12.6 Summary of assessment findings for South of Bidford-on-Avon (Site 13 and 14):

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
History, Cultural Heritage	Landscape	Biodiversity	Flood Risk	Climate Change Mitigation	Climate Change Adaptation	Natural Resource	Pollution	Waste	Transport	Rural Barriers	Countryside	Affordable Housing	Health, Wellbeing	Economy
+/-	-	-	--	--	-	-	-	0	-	0	-	-	0	0

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## 4 Appraisal Findings

4.1.1 This chapter presents the findings of the assessment process according to SA Objective.

### 4.2 SA Objective 1 (Cultural heritage)

4.2.1 SA Objective 1 relates to the protection, enhancement and management of historical features. It relates to features and areas of archaeological, historical and cultural heritage importance seeking to protect and enhance these features, particularly their setting. Development which enhances or protects these features is considered positive.

4.2.2 Many sites are associated with negative effects of this SA Objective. This relates to proximity to receptors and also the potential permanent loss of features. The Long Marston location (Sites 5 and 10) is believed to enhance cultural links if development is associated with previous uses such as the airfield and military site. There are no known constraints with respect to cultural heritage at these sites.

4.2.3 Wootton Wawen is a picturesque village to the north of Stratford-on-Avon and contains several historical buildings including St Peter's; the oldest church in Warwickshire. The site is assessed as strongly adverse on features of historical importance as the houses bordering the site to the east include six listed buildings, as well as the four additional listed buildings of manor farm and St Peter's church located nearby.

4.2.4 Mitigation for cultural heritage receptors should be led by an improved understanding of the significance at each site, followed by appropriate development design. It is possible to mitigate some impacts that affect cultural heritage although the effects are usually irreversible if an archaeological dig has been necessary to excavate finds. Development planning can also help mitigate effects by incorporating a strong appreciation of cultural heritage into any design briefs.

### 4.3 SA Objective 2 (Landscape)

4.3.1 This objective seeks to ensure that the character of place is valued and understood. Environmental receptors relevant to this objective include overall landscape relief formed by for example, man-made features including semi-natural features such as woodlands, hedgerows, and ridge and furrow fields. A key receptor of national importance is the Cotswolds AONB.

4.3.2 The Long Marston sites have different assessment findings since the airfield is very open and likely to impact the AONB from some viewpoints however this requires further work. The military base is much more wooded and could absorb housing. The smaller of the three sites is deemed to have neutral effects on the basis that it would be an extension of an existing settlement and strategically speaking, of likely negligible effect. Details about size and nature of the development would better inform this assessment.

4.3.3 With appropriate design, and an emphasis on green infrastructure enhancement, positive effects might be expected at Lighthorne Heath, South East Stratford and East of Moreton-in-Marsh.

4.3.4 Strong irreversible effects are associated with development at Brailes since the tranquil location is part of the Cotswolds AONB.

4.3.5 Less significant negative effects are associated with several other locations due largely to the fact that the change in character will be significant as compared with the baseline conditions of generally good quality landscapes and an impact of massing amongst isolated rural locations. Any settlement considered likely to become a strategic allocation will need to fully explore landscape impacts in more detail.

#### 4.4 SA Objective 3 (Biodiversity)

4.4.1 SA Objective 3 deals with the protection, management and enhancement of biodiversity and geodiversity features within Stratford-on-Avon. There are a number of receptors considered relevant to the appraisal process. These include habitats and species that are protected by law or identified by local biodiversity planning processes to identify priority habitats and species.

4.4.2 Strategic site visits were undertaken in May 2013 but were mainly limited to long distance views and occasional walkovers by the edge of a site. No phase 1 habitat surveys have been prepared and the level of analysis in the appraisal is restricted to secondary information.

4.4.3 Sites 11 and 12 are assessed as having likely strong negative effects due to their location coinciding with a RIGS and SSSI respectively.

4.4.4 Site 7 is located near to Wolford Wood & Old Covert SSSI where development could have impacts. Other sites with likely negative effects will be due to the assemblage of habitats in a particular location or presence of a local designation of some sort such as a Local Wildlife Site.

4.4.5 In all cases, new and up to date information for biodiversity and geodiversity should be collected as part of the development brief for chosen strategic sites. There are likely to be strong opportunities to enhance and strengthen biodiversity at sites in general. This requires the development brief to include appropriate biodiversity gain and maximization of ecosystem services from the start of the process.

#### 4.5 SA Objective 4 (Flood risk)

4.5.1 SA Objective 4 concerns the issue of flood risk that has been the source of environmental damage and expensive repair work across the district in the past. The NPPF (2012) which states that:

*"Inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk, but where development is necessary, making it safe without increasing flood risk elsewhere."*

4.5.2 Some of the potential sites for a new settlement do not appear to be in an area of flood risk, these are consequently assessed as having a neutral effect. Development at sites 1 & 2 (Lighthorne Heath), 7 (Moreton-in-Marsh), and 9 (Wootton Wawen) were assessed in this way. Development at these locations is unlikely to increase the number of properties at risk of flooding. Best practice Sustainable Drainage Systems (SuDS) techniques should be incorporated to ensure flood risk is minimised.

4.5.3 Other sites with flood risk should seek firstly to avoid development and secondly to mitigate any exacerbation of flooding. The effect of flood risk on development depends on the siting, design and mitigation of development. Some of the flood risk could potentially be mitigated by design.

## 4.6 SA Objective 5 (Climate change mitigation)

- 4.6.1 SA Objective 5 is concerned with minimising Stratford-on-Avon's contribution to climate change which includes reducing emissions. The Objective focuses on sources of green house gas consumption, and is usually influenced by the impact the site will have on methods of transportation. However it is uncertain whether locating a site near to public transport or walking and cycling routes will significantly reduce emissions, especially if these are recreational routes rather than routes for commuting.
- 4.6.2 Long Marston Airfield and South of Bidford have been assessed as having strong adverse effects due to high level of car use in a remote location. Only East of Moreton (Site 7) has the potential to perform well.
- 4.6.3 Mitigating the effects of climate change lie well beyond the scope of this plan since it is a global phenomenon. Efforts to reduce greenhouse gas consumption and hence carbon footprint can be made through integrated approach is to transport management. Behavioural change plays a key role in this respect since people should be able to use buses, trains and bikes wherever possible. However the remote and rural nature of some of these locations means that travel by car is inevitable.

## 4.7 SA Objective 6 (Climate change adaptation)

- 4.7.1 In June 2009 the outcome of research on the probable effects of climate change in the UK was released by the UK Climate Projections (UKCP09) team<sup>4</sup>. UKCP09 gives climate information for the UK up to the end of this century and projections of future changes to the climate are provided, based on simulations from climate models. The projections are broken down to a regional level across the UK and are shown in probabilistic form, which illustrate the potential range of changes and the level of confidence in each prediction.
- 4.7.2 Resulting from these changes, the study has suggested that a variety of risks exist for the West Midlands (see original report for full list). The risks relevant to Stratford-on-Avon resulting from climate change include effects on water resources, increased risk of flooding, loss or spread of species, increased temperature, increased incidence of heat related illnesses and deaths during the summer and summer droughts, among others.
- 4.7.3 Although there is no local data on the sites' ability to adapt to changes brought about by climate change, as flooding is set to increase, the assessment has taken account of the flood risk of each site. GI is another factor to take into account; Forest Research (2010) advises that the ecosystem services provided by GI provide heat amelioration, reduce flood risk and improve water and air quality, all of which aid an area to adapt to the changing circumstances brought about by climate change.
- 4.7.4 Sites which are located in flood risk zones, or where development will significantly reduce the amount of GI in the area, will be less likely to adapt to climate change. Green infrastructure planning is an important and emerging approach to settlement design that can help with the issue of climate change adaptation. Trees in the form of individual standards and woodlands are very important when looking at carbon sequestration, shade, biodiversity and landscape benefits.

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<sup>4</sup> The data was released in June 2009: See: <http://ukclimateprojections.defra.gov.uk/>

## 4.8 SA Objective 7 (Natural resource)

- 4.8.1 The aim of SA Objective 7 is to conserve and protect natural resources. Further information on the material assets of each site is needed to create a complete picture, however the assessment has been made on the basis of information provided by the British Geological Society (BGS). It is understood via discussion with the minerals local planning team at Warwickshire County Council that sites are still being selected and minerals allocations may not always include all BGS sites. The emerging minerals plan will contain more details about each minerals site allocation in the county. This document and the team preparing it should be consulted to gain a more explicit picture of minerals constraints in the district. It is understood that the minerals allocations for sand and gravel, crushed rock, cement and raw materials in proximity to the sand gravel will be especially important.
- 4.8.2 Sites which have been assessed as having an adverse effect on natural resources according to BGS information include sites 3, 4, 5, 11, 13, and 14.
- 4.8.3 Another important consideration when looking at natural resources is the consideration of soil quality. Some sites have been recorded as having negative effects on any soil suspected to be of an ALC grade two or above. Sites with Grade 3 land will need exploring to determine if the land is 3A or 3B.
- 4.8.4 Site 10, Long Marston ex-military estate, performs well in terms of natural resources since development at this site will include brownfield land.

## 4.9 SA Objective 8 (Pollution)

- 4.9.1 The reduction of air, soil and water pollution is dealt with by SA Objective 8. The assessment relies on the Air Quality Screening and Updating Report (2009) and the Water Cycle Study (2012). There is insufficient local information to be able to gauge the effect of development on soil pollution.
- 4.9.2 Sites 5, 6, 10, 13 and 14 are assessed as having an adverse impact on SA Objective 8 as their nearby Wastewater Treatment Works (WwTW) are at their consent limit and cannot currently support additional development in their catchment. Further discussions with the water companies and WwTWs would need to be undertaken before development could take place at these locations.
- 4.9.3 Mitigation of wastewater effects is likely to be achieved through the water companies as they prepare the Water Resource Management Plan.
- 4.9.4 Air quality is another receptor that can be affected by pollution. There are potential air quality effects at the South East Stratford Site to exacerbate the Stratford-on-Avon AQMA. Other pollution effects include noise and light. There is no available data for these impacts. Any new sites allocated through this process should consider effects of this nature.

#### **4.10 SA Objective 9 (Waste)**

4.10.1 The assessment against SA Objective 9 on reducing waste and promoting the waste hierarchy is neutral for all sites. This is due to the fact that the generation and disposal of waste depends on the design and regulations in place, more so than the location of the site. Links with the Waste Core Strategy for the county (2013) is important in this respect. Safeguarded waste sites are a key consideration in this respect.

#### **4.11 SA Objective 10 (Transport)**

4.11.1 SA Objective 10 aims to improve the efficiency of transport networks by increasing the proportion of travel by sustainable modes. The assessment considers proximity to larger settlements and whether there are public transport facilities nearby. New residents will be likely to travel to these larger settlements to access shops, schools, jobs and other facilities. The objective also aims to promote policies which reduce the need to travel.

4.11.2 Due to the nature of available information, the map which shows bus routes does not show all of the stops and therefore it is uncertain whether a bus route will pass close to a proposed site or just to the nearest settlement.

4.11.3 Strong positive effects are associated with Lighthorne Heath and South East Stratford due to location. Negative effects tend to be associated with sites that are in isolated rural locations, or existing infrastructure is restrictive.

4.11.4 See **section 4.6** for mitigation and the importance of pursuing an integrated approach to transport and traffic management.

#### **4.12 SA Objective 11 (Barriers for rural areas)**

4.12.1 Consideration of rural barriers includes whether or not there is a good level of service provision, will access to public transport increase and will it support affordable housing. Strong positive effects are expected at Long Marston airfield, north of Wootton Wawen and Southam cement works. Other sites are also associated with positive effects since the introduction of new development will more likely include new services.

4.12.2 Mitigation to this particular effect is influenced by the approach taken to master planning. Development briefs for these locations need to consider a range of factors besides housing and employment land.

#### **4.13 SA Objective 12 (The countryside)**

4.13.1 SA Objective 12 is concerned with ensuring that the countryside is not degraded from effects such as the urban fringe, loss of agricultural land and safeguarding local distinctiveness. Sites in general will experience negative effects in the performance of this SA objective. Only Lighthorne Heath and South East Stratford perform well.

#### **4.14 SA Objective 13 (Affordable housing)**

4.14.1 All sites performed well against this SA Objective with Bidford being the only exception since new development for affordable housing is likely to be surplus to requirements following recent housing growth.

## 4.15 SA Objective 14 (Health and wellbeing)

4.15.1 SA Objective 14 concerns a range of factors including availability of open air recreation, play facilities, health centres, overall levels of fitness and crime. Most sites perform well with the exception of Brailes which would lose a golf course and be replaced by housing; and South East Stratford with the loss of recreational facilities and allotments. Uncertainty was recorded for Long Marston since the area is lacking in local access levels. The only exception being two long distance paths that lie around site 5.

## 4.16 SA Objective 15 (The economy)

4.16.1 SA Objective 15 relates to the provision of new employment sites, encouragement of new business sectors and the visitor economy. It is assumed that all locations will include an employment allocation if the site is large enough. However lack of detail means that assessment findings should be considered in more detail once more information is available.

4.16.2 Positive effects tend to be anticipated when sites are located close to strategic settlements which are more likely to support higher numbers of workers, or are accessible i.e. close to M40 or other parts of the national road network. This can have climate change impacts (see **section 4.6**).

4.16.3 Several sites perform well whilst others less so due to geographic proximity or known economic trends in the area (e.g. Brailes).



# 5 Conclusions

## 5.1 Conclusions and Recommendations

- 5.1.1 The sustainability of the sites varies with no single site performing without some form of predicted adverse effect on the SA Objectives. Three sites appear to perform better than the others: Lighthorne Heath (Sites 1 and 2) and East of Moreton-in-Marsh (Site 7).
- 5.1.2 In contrast, two sites perform especially poorly in terms of overall sustainability, Brailes (Site 6) and South of Bidford-on-Avon (Sites 13 and 14).
- 5.1.3 A general observation is that since most of the sites are greenfield and in rural locations, those SA Objectives concerned with the environment performed less well than social and economic SA Objectives. Impacts vary at different sites and some effects are likely to be irreversible such as loss of the soil resource.
- 5.1.4 These findings are very high level and represent a broad interpretation of some of the strategic constraints likely to affect the delivery of sustainable development at each location. **Chapter 4** includes several recommendations for further work on many aspects at various sites. With further information it will be possible to predict effects with greater accuracy. The magnitude of effect is important, as is the ability to mitigate effects.

## 5.2 Limitations

- 5.2.1 Limitations to the assessment include restricted field survey work, available recent data to inform all of the SA Objectives at all of the sites and limited information about the nature and design of the likely development proposals. Interpretation of impact has been made using crude orders of magnitude that could be better understood with improved baseline information. The assessment represents a first indication of some of the likely issues to be faced at each site. In many cases the predicted effects should be more fully explored with follow up work in the respective disciplines of the SA Objectives.
- 5.2.2 The assessment has operated with a precautionary principle approach and whilst some impacts might be easily overcome with mitigation, this factor has not unduly influenced the assessment outcome. Where negative effects are likely these have been raised, no matter how easily they might be addressed.

## 5.3 Next stages

- 5.3.1 Alongside other evidence, this report will inform the selection of strategic site (s) for the Core Strategy. It helps inform the identification of those sites that perform best in sustainability terms. This is a requirement of the SEA Directive when exploring reasonable alternatives for the Core Strategy. It will be used to inform other aspects of the SA process including the preparation of the SA Report to accompany the Publication Version of the Core Strategy.

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