

**SOLIHULL METROPOLITAN BOROUGH COUNCIL
LOCAL DEVELOPMENT FRAMEWORK CORE STRATEGY**

**HABITAT REGULATIONS APPROPRIATE ASSESSMENT STAGE 1:
FURTHER SCREENING REPORT**

A Report to Solihull Metropolitan Borough Council

Middlemarch Environmental Ltd
Triumph House
Birmingham Road
Allesley
Coventry
CV5 9AZ

Tel: 01676 525880

Fax: 01676 521400

E-Mail: admin@middlemarch-environmental.com

Web Site: www.middlemarch-environmental.com

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March 2012

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01 OF 02

01 SOLIHULL METROPOLITAN BOROUGH COUNCIL
02 MIDDLEMARCH ENVIRONMENTAL LTD

This report was compiled by:

Tom Docker MSc AIEEM and Dr Katy Read MCIWEM MIEEM CEnv DipSM

*The contents of this report are the responsibility of Middlemarch Environmental Ltd.
It should be noted that, whilst every effort is made to meet the client's brief,
no site investigation can ensure complete assessment
or prediction of the natural environment.*

Contract Number C111062

March 2012

EXECUTIVE SUMMARY

Solihull Metropolitan Borough Council is currently developing its Core Strategy, entitled 'Solihull Draft Local Plan – Shaping a Sustainable Future'. The purpose of this document is to set out the long-term spatial vision for how the towns, villages and countryside within Solihull Borough will develop and change over the plan period to 2028, and to provide a framework for how this vision will be delivered through a strategy for promoting, distributing and delivering sustainable development and growth.

In accordance with Articles 6(3) and 6(4) of the European Council Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Flora and Fauna, Solihull MBC has a mandatory obligation to assess whether the implementation of the local plan is likely to have a significant effect on any Natura 2000 site, either alone or in combination with other plans. An initial screening exercise was undertaken in 2008 by Warwickshire Wildlife Trust, when the Core Strategy was at the 'Issues and Options' stage of development. This exercise assessed the potential for the Core Strategy to impact upon the integrity of 12 Natura 2000 sites. Potential significant effects at 8 of these sites were screened out, and further screening of 4 sites was recommended when Core Strategy policies were further refined. The 4 sites put forward for further screening were:

- Cannock Extension Canal SAC;
- Cannock Chase SAC;
- Bredon Hill SAC; and,
- Peak District Dales SAC.

Further screening of the above sites was recommended in accordance with the precautionary principle, as the Core Strategy policies were not sufficiently detailed to allow potential significant effects arising from increased recreational pressure and air pollution to be fully assessed. The current further screening exercise is based upon specific policies outlined in the Pre-Submission Draft document. Prior to the assessment commencing, the scope of work proposed was agreed in consultation with Natural England.

The further screening exercise concluded the following:

- Core Strategy policies will not directly impact upon any of the Natura 2000 sites put forward for further screening. All sites are located well outside of the borough boundary.
- No significant effects are considered likely on any of the Natura 2000 sites put forward for further screening, either alone or in combination with other plans.
- No further screening is recommended. It is not considered necessary for the current iteration of the Core Strategy to proceed through any further stages of the Appropriate Assessment process.

In accordance with the precautionary principle, recommendations are made for further consideration of the effects of any individual large-scale developments that may be proposed within the borough during the plan period. Specifically this relates to any further expansion of Birmingham Airport, and to individual residential developments resulting in a net increase of >100 dwellings.

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1. INTRODUCTION

1.1 PROJECT BACKGROUND

Solihull Metropolitan Borough Council (hereafter Solihull MBC) is in the process of developing its Local Development Framework (LDF) Core Strategy. The purpose of this document is to set out the long-term spatial vision for how the towns, villages and countryside within Solihull Borough will develop and change over the plan period to 2028, and to provide a framework for how this vision will be delivered through a strategy for promoting, distributing and delivering sustainable development and growth.

Solihull MBC has commissioned Middlemarch Environmental Ltd to undertake a screening exercise in order to determine whether a full Appropriate Assessment is required for the Core Strategy under Article 6 of the European Council Directive 92/43/EEC.

Articles 6 (3) and 6 (4) of the European Council Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Flora and Fauna (hereafter 'the Habitats Directive') state that an Appropriate Assessment is required for strategic land use plans that are considered likely to have a significant effect on a Natura 2000 site, either individually or in combination with other plans or projects. Natura 2000 sites are those sites designated under the Habitats Directive to ensure the protection of European important habitats, and include Special Areas of Conservation (SAC), Special Protection Areas (SPA), Offshore Marine Sites (OMS) and Ramsar sites.

The competent authority can only agree to the strategic land use plan after having ascertained that it will not adversely affect the integrity of any Natura 2000 sites. Where adverse impacts are anticipated, a strategic land use plan may still be agreed provided that there are no alternative solutions and the plan is considered to be of overriding public interest. In such instances appropriate compensatory measures are required to ensure that the overall coherence of the Natura 2000 site network is protected.

An earlier draft of the strategy has already been subject to an Appropriate Assessment screening exercise, undertaken by Warwickshire Wildlife Trust in 2008. This report, which is summarised in Section 1.2, recommended that further screening should be undertaken once the policies within the Core Strategy are refined.

1.2 SUMMARY OF PREVIOUS SCREENING EXERCISE

The Solihull LDF Core Strategy has been in development for a number of years, and was subject to a previous Appropriate Assessment screening exercise in September 2008 (Warwickshire Wildlife Trust, 2008). This exercise was undertaken at the 'Issues and Options' stage of the Core Strategy development process, and assessed the likely impacts of the Strategy on the following 12 sites:

- Ensor's Pool SAC (8.9 km from Solihull MBC boundary);
- Cannock Extension Canal SAC (19.1 km from Solihull MBC boundary);
- River Mease SAC (21.4 km from Solihull MBC boundary);
- Fens Pool SAC (21.6 km from Solihull MBC boundary);

- Lyppard Grange Ponds SAC (28.1 km from Solihull MBC boundary);
- Cannock Chase SAC (28.3 km from Solihull MBC boundary);
- Bredon Hill SAC (35.2 km from Solihull MBC boundary);
- Pasturefields Salt Marsh (36.2 km from Solihull MBC boundary);
- Motte Meadows SAC (37.5 km from Solihull MBC boundary);
- West Midlands Mosses SAC (39.2 km from Solihull MBC boundary);
- Midlands Meres and Mosses Phase I Ramsar (Various locations across Cheshire, Shropshire and Staffordshire); and,
- Peak District Dales SAC (75 km from Solihull MBC boundary).

This list comprises all Natura 2000 sites within a 50 km radius of the Solihull MBC boundary, in addition to the Peak District Dales SAC which forms part of the most visited National Park in the United Kingdom. This study was developed using data from HBA (2008 *et. seq.*) to provide habitat data from Warwickshire and Solihull to support the assessment.

This screening process concluded:

- It is **unlikely** that core strategy policies will directly impact upon any sites.
- Possible impacts may arise as a result of growth and development policies that give rise to **recreational pressure**. Vehicular and aircraft emissions are likely to increase and thus affect local and regional **air quality**, potentially contributing to nitrogen and acid deposition issues at sites located downwind of the borough.
- Further screening is strongly recommended in line with the **precautionary principle** for those sites where impacts are unclear or uncertain.

Potential impacts on 8 of the 12 Natura 2000 sites were screened out during this initial assessment. It was however recommended that further screening was undertaken once the Core Strategy was at a later stage of development, when more detail is available regarding proposed development policies and housing numbers. The following sites were proposed for further screening:

- Cannock Extension Canal SAC;
- Cannock Chase SAC;
- Bredon Hill SAC; and,
- Peak District Dales SAC.

1.3 SCOPING CONSULTATION WITH NATURAL ENGLAND

In early 2012 consultation was undertaken with Natural England in order to confirm that the proposed scope of further screening works is appropriate, and to assess whether there have been any changes to the Natura 2000 sites network (e.g. newly designated areas) since the previous study carried out in 2008.

A consultation response was received from Hayley Pankhurst (Lead Advisor, Land Use Operations) on 19th March 2012. This response stated that Natural England broadly agrees with the findings of the 2008 screening report, and provided site-specific comments which are summarised below. No changes to the relevant parts of the Natura 2000 network were highlighted in the response.

Cannock Extension Canal SAC

The 2008 screening report identified recreational pressure as being a possible significant effect requiring further screening, but screened out possible impacts upon water quality and air pollution.

Natural England confirm that any recreational pressure would most likely be canal based in order to have an impact on the integrity of the site, e.g. increased numbers of boats and passage along/within the SAC. Water quality is noted as being a key consideration, especially disturbance to the water column arising from boats stirring up silt on the canal bed.

Natural England agrees with the conclusion of possible significant effects that require further investigation.

Cannock Chase SAC

The 2008 screening report identified increased recreational pressure and air pollution as being possible significant effects requiring further screening, but screened out possible impacts on water quantity as a result of abstraction.

Natural England confirms that they consider increased recreational pressure to be a key issue for the site, and they welcome the recognition given to the potential for in-combination effects.

Bredon Hill SAC

The 2008 screening report identified that air pollution is a possible significant effect, as NO_x critical loading levels are already exceeded. Further screening was recommended.

Natural England highlights the fact that the Bredon Hill SAC is designated for the presence of the violet click beetle *Limoniscus violaceus*, and that neither this species nor its favoured habitat of decaying timber, are especially sensitive to air pollution. Natural England advise that, pending further consideration of aircraft emissions, it may be possible to screen this effect out.

Peak District Dales SAC

The 2008 screening report identified that increased recreational pressure and air pollution are possible significant effects on this site, which forms part of the most visited National Park in the United Kingdom, and recommended that further screening be carried out when the Core Strategies policies were refined.

Natural England welcomes the recommended further assessment of these impacts. The consultation response highlights the fact that the Peak District Dales SAC is made up of many component Sites of Special Scientific

Interest, and that it may be easier to consider the component parts separately in order to narrow down any potential impacts.

2. METHODOLOGY

The current assessment has been undertaken based on best practice guidance as detailed by the Impacts Assessment Unit at Oxford Brookes University (2001) and the Department for Communities and Local Government (2006), in addition to a review of previous strategic habitat assessment projects.

Current best practice guidance identifies that the appropriate assessment process is broadly divisible into three distinct stages, with the need to complete each stage determined by the results of the previous stage. In summary, these stages are:

- **Stage 1: Evidence Gathering and Screening**

This stage is associated with collecting evidence regarding those parts of the Natura 2000 network that have the potential to be impacted by the strategic land-use plan, either alone or in combination with other projects or plans. Where no significant effects are perceived, sites may be screened out of the need for further assessment during Stage 2.

- **Stage 2: Appropriate Assessment of Significant Impacts**

Where it is considered a Natura 2000 site may experience significant effects from a project or strategic land-use plan, either alone or in combination, a detailed assessment of likelihood and severity of the perceived impact on the integrity of the Natura 2000 network is undertaken. This assessment is based on a detailed review of the project or plan in conjunction with the structure, function and conservation objectives of the Natura 2000 site. This stage may also include a preliminary assessment regarding the potential for the identified impacts to be mitigated.

- **Stage 3: Assessment of Alternative Solutions and Mitigation Measures**

Where impacts on the integrity of the Natura 2000 network are perceived, this stage examines alternative ways of achieving the objectives of the project or strategic land-use plan in order to avoid these impacts. Where the potential for adverse impacts remains, and where it is deemed that a project or land-use plan should proceed for Imperative Reasons of Overriding Public Interest (IROPI), an investigation of appropriate mitigation and compensatory measures is undertaken.

This report focuses on Stage 1 of the Appropriate Assessment process. Evidence gathering and screening is undertaken for those sites which could not be screened out during the previous screening exercise undertaken by Warwickshire Wildlife Trust in 2008.

Implicit in the Habitats Directive is the application of the **precautionary principle**, which requires that the conservation objectives of Natura 2000 should prevail where there is uncertainty whether there will be an impact or not (Oxford Brookes, 2001). The European Commission's Final Communication from the Commission on the Precautionary Principle (European Commission, 2000a) states that the use of the precautionary principle presupposes:

- Identification of potentially negative effects resulting from a phenomenon, product or procedure;
- A scientific evaluation of the risks which because of the insufficiency of the data, their inconclusive or imprecise nature, makes it impossible to determine with sufficient certainty the risk in question (CEC, 2000).

According to best practice guidance, this means that the emphasis for assessment should be on objectively demonstrating, with supporting evidence, that there will be no significant effects on a Natura 2000 site. The publication 'Managing Natura 2000 Sites: The Provision of Article 6 of the 'Habitats' Directive 92/43/EEC' (European Commission, 2000b) provides explanatory guidance regarding this point, which is paraphrased below.

It is clear from the context and from the purpose of the directive that the 'integrity of the site' relates to the site's conservation objectives. For example, it is possible that a plan or project will adversely affect the integrity of a site only in a visual sense or only habitat types or species other than those listed in Annex I or Annex II. In such cases, the effects do not amount to an adverse effect for the purposes of Article 6(3), provided that the coherence of the network is not affected.

The expression 'integrity of the site' shows that focus is here on the specific site. Thus, it is not allowed to destroy a site or part of it on the basis that the conservation status of the habitat types and species it hosts will anyway remain favourable within the European territory of the Member State.

As regards the connotation or meaning of 'integrity', this can be considered as a quality or condition of being whole or complete. In a dynamic ecological context, it can also be considered as having the sense of resilience and ability to evolve in ways that are favourable to conservation. The 'integrity of the site' has been usefully defined as 'the coherence of its ecological structure and function, across its whole area, that enables it to sustain the habitat, complex of habitats and/or levels of populations of the species for which it was classified' (IEEM, 2006)

The integrity of the site involves its ecological functions. The decision as to whether it is adversely affected should focus on and be limited to the site's conservation objectives.

The Conservation Objectives for each of the Natura 2000 sites taken forward for further screening have been provided by Natural England. They are detailed in a short report which defines the desired state of the site with regard to the features for which it has been designated. Natural England highlight that when these features are being managed in a way which maintains their nature conservation value, they are said to be in 'favourable condition'.

3. NATURA 2000 SITES

As highlighted in the 2008 screening exercise and subsequently agreed with Natural England, this report details further screening of 4 Natura 2000 sites in the context of refined LDF policies. The qualifying criteria and relative distances of these sites from the Solihull MBC boundary are summarised in Table 3.1.

NATURA 2000 SITE	QUALIFYING CRITERIA	DISTANCE TO SOLIHULL MBC BOUNDARY
Cannock Extension Canal SAC	1 no. Annex II Species	19.1 km
Cannock Chase SAC	2 no. Annex I Habitat Types*	28.3 km
Bredon Hill SAC	1 no. Annex II Species	35.2 km
Peak District Dales SAC	7 no. Annex I Habitat Types 3 no. Annex II Species**	75 km
<p><i>*Cannock Chase SAC also supports 2 no. Annex II species; however these are not listed as qualifying criteria by the Joint Nature Conservation Committee (JNCC).</i></p> <p><i>**Peak District Dales SAC supports one further Annex II species that is not listed as a designation criteria by JNCC.</i></p>		

Table 3.1: Summary of SAC Qualifying Criteria and Distance from Solihull MBC Boundary

No Natura 2000 sites fall with or adjacent to the Solihull MBC boundary.

The designation criteria, conservation objectives and vulnerability of each of the Nature 2000 sites listed in Table 3.1 are detailed in Chapters 4 to 7.

A review of the policies within the latest iteration of the LDF Core Strategy document is provided in Chapter 8, in addition to a summary of other relevant regional plans for which the potential for in-combination effects has been taken into consideration.

4. CANNOCK EXTENSION CANAL SAC

4.1 QUALIFYING CRITERIA

The following information is taken from the Joint Nature Conservation Committee (JNCC) site description and accompanying site citation document, both of which are available at

<http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?EUCode=UK0012672>.

Country:	England
Unitary Authority:	Staffordshire; Walsall
Centroid:	SK 020 058
Latitude:	52 38 59 N
Longitude:	01 58 14 W
SAC EU Code:	UK0012672
Status:	Designated Special Area of Conservation (SAC)

Cannock Extension Canal extends for a distance of 2.9 km, and runs from Pelsall Junction on the Wyrley and Essington Canal to Norton Canes Docks. The SAC is dominated by standing water habitat, but also includes areas of mesophilic grassland, broadleaved woodland and the built environment.

4.1.1 Qualifying Habitats

The site does not support any Annex I habitat types. Annex 1 habitats are neither a primary reason for selection or present as qualifying criteria.

4.1.2 Qualifying Species

The site qualifies under Article 4.1 of the Habitats Directive (92/43/EEC) as it supports a species of importance listed on Annex II of the Directive. This species is floating water plantain *Luronium natans*, for which Cannock Extension Canal SAC is identified in the site citation as being one of the best areas in the United Kingdom.

The JNCC site description states that "*Cannock Extension Canal in central England is an example of anthropogenic, lowland habitat supporting floating water-plantain **Luronium natans** at the eastern limit of the plant's natural distribution in England. A very large population of the species occurs in the Canal, which has a diverse aquatic flora and rich dragonfly fauna, indicative of good water quality. The low volume of boat traffic on this terminal branch of the Wyrley and Essington Canal has allowed open-water plants, including floating water-plantain, to flourish, while depressing the growth of emergents*".

4.2 VULNERABILITY OF THE SAC

The issues to which the SAC is vulnerable are highlighted in Table 4.1. This information has been collated from sources including JNCC, Natural England and the original Warwickshire Wildlife Trust screening report.

ISSUE	DETAIL	SOURCE OF DATA
Lack of Recreational Use	If the canal is not used, the abundant growth of other aquatic macrophytes may shade-out the <i>Luronium natans</i> unless routinely controlled by cutting.	JNCC SAC Citation
Increased Recreational Use	An increase in recreational activity would be to the detriment of <i>Luronium natans</i> .	JNCC SAC Citation
	Any recreational pressure would most likely be canal based in order to have an impact (e.g. increased number of boats and passage along/within the SAC).	Natural England Consultation Response
Loss of Water Quality	An increase in recreational activity would be to the detriment of <i>Luronium natans</i> . Existing discharges of surface water run-off, principally from roads, cause some reduction in water quality.	JNCC SAC Citation
	Air pollution may contribute to a decline in water quality through acid and nitrogen deposition.	2008 WWT Screening Report

Table 4.1: Summary of Vulnerability of Cannock Extension Canal SAC

It is clear from the JNCC SAC citation that the balance of recreational use of the site is considered to be the key issue regarding the favourable conservation status of the *Luronium natans* population for which the site is designated.

4.3 CONSERVATION OBJECTIVES

Conservation Objectives for the Cannock Extension Canal SAC were provided by Adam Dempsey (Land Management Lead Advisor for Staffordshire) at Natural England on 8th March 2012. It is noted that at the time of compilation of this report these objectives are in draft form, and that the final conservation objectives will be issued in the coming weeks. It is not anticipated that these objectives will alter significantly between the draft and final versions. The site is designated as both a Site of Special Scientific Interest (SSSI) and a SAC; however the reasons for designation are the same.

The Conservation Objectives for the Cannock Extension Canal SAC are summarised in Table 4.2.

FEATURE	CONSERVATION OBJECTIVE
Floating Water Plantain <i>Luronium natans</i>	To maintain the designated habitats in favourable condition to support the species features of national / international importance.

Table 4.2: Relevant Conservation Objectives – Cannock Extension Canal SAC

5. CANNOCK CHASE SAC

5.1 QUALIFYING CRITERIA

The following information is taken from the Joint Nature Conservation Committee (JNCC) site description and accompanying site citation document, both of which are available at

<http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?EUCode=UK0030107>

Country:	England
Unitary Authority:	Staffordshire
Centroid:	SJ 982 188
Latitude:	52 45 59 N
Longitude:	02 01 36 W
SAC EU Code:	UK0030107
Status:	Designated Special Area of Conservation (SAC)
Area (ha):	1236.93

The Cannock Chase SAC is an extensive area of lowland heath habitat. Other habitats present with the SAC include standing and running water, coniferous woodland, non-forest areas cultivated with woody plants (e.g. orchards) and the built environment.

5.1.1 Qualifying Habitats

The site qualifies under Article 4.1 of the Habitats Directive (92/43/EEC) as it supports two habitats of European importance listed on Annex I of the Directive. European Dry Heaths are listed as a primary reason for selection, and Northern Atlantic Wet Heaths with *Erica tetralix* are listed as a qualifying feature but are not a primary reason for site selection.

The JNCC site description states that “*the area of lowland heathland at Cannock Chase is the most extensive in the Midlands, although there have been losses due to fragmentation and scrub/woodland encroachment. The character of the vegetation is intermediate between the upland or northern heaths of England and Wales and those of southern counties. Dry heathland communities belong to NVC types H8 Calluna vulgaris – Ulex gallii and H9 Calluna vulgaris – Deschampsia flexuosa heaths. Within the heathland, species of northern latitudes occur, such as cowberry Vaccinium vitis-idaea and crowberry Empetrum nigrum. Cannock Chase has the main British population of the hybrid bilberry Vaccinium intermedium, a plant of restricted occurrence. There are important populations of butterflies and beetles, as well as European nightjar Caprimulgus europaeus and five species of bats*”.

The quality and importance of the qualifying habitats, as detailed in the site citation, are summarised in Table 5.1.

QUALIFYING HABITAT	SITE COVERAGE (%)	QUALITY AND IMPORTANCE
European Dry Heaths	75%	Cannock Chase is considered to be one of the best areas in the United Kingdom.
North Atlantic Wet Heaths with <i>Erica Tetralix</i>	1.3%	Cannock Chase is considered to support a significant presence.

Table 5.1: Quality and Importance of Qualifying Habitats for Cannock Chase SAC

5.1.2 Qualifying Species

The JNCC site description for the Cannock Chase SAC does not identify any Annex II species that are either a primary reason for a selection or are present as a qualifying criterion. The SAC citation does, however, indicate the presence of Annex II species within the site. These are:

- White-clawed crayfish *Austropotamobius pallipes*, identified as being present; and,
- Great crested newt *Triturus cristatus*, identified as being present with a population size of between 11 and 50 animals.

5.2 VULNERABILITY OF THE SAC

The issues to which the SAC is vulnerable are highlighted in Table 5.2. This information has been collated from sources including JNCC, Natural England and the 2008 Warwickshire Wildlife Trust screening report.

ISSUE	DETAIL	SOURCE OF DATA
Recreational Pressure	Much of the SAC falls within the well-used country park, therefore visitor pressure is a key issue. Activities including dog walking, horse riding, mountain biking and off-track activities such as orienteering can all cause disturbance and result in erosion, new track creation and vegetation damage.	JNCC SAC Citation
Bracken	Bracken invasion is significant, but is being controlled. Birch and pine scrub, much of the latter from surrounding commercial plantations, is continually invading the site and has to be controlled. High visitor usage and the fact that a significant proportion of the site is Common Land, requiring Secretary of State approval before fencing can take place, means that the reintroduction of sustainable management in the form of livestock grazing has many problems.	JNCC SAC Citation
Hydrology	Cannock Chase overlies coal measures which have been deep-mined. Mining fissures continue to appear across the site even though mining has ceased and this is thought to detrimentally affect site hydrology. Furthermore the underlying Sherwood Sandstone is a major aquifer with water abstracted for public and industrial uses and the effects of this on the wetland features of the Chase are not fully understood.	JNCC SAC Citation
Air Pollution*	NOx deposition is higher than the critical load, which is negatively impacting upon the heathland vegetation community.	2008 WWT Screening Report Air Pollution Information System (2012)

Table 5.2: Summary of Vulnerability of Cannock Chase SAC

*Air pollution is not considered to be a key vulnerability by JNCC.

5.3 CONSERVATION OBJECTIVES

Conservation Objectives for the Cannock Chase SAC were provided by Adam Dempsey (Natural England Land Management Lead Advisor for Staffordshire) on 8th March 2012, and are summarised in Table 5.3. It should be noted that Cannock Chase SAC is composed of a number of individual SSSIs, and that Conservation Objectives are generally written for individual SSSIs as opposed to the SAC as a whole. As such, Table 5.3 only summarises those Objectives relevant to the SAC qualifying features and other Annex I Habitats and Annex II species known to occur.

FEATURE	CONSERVATION OBJECTIVE
European Dry Heaths (Dwarf Shrub Heath)	To maintain the designated habitats in favourable condition.
North Atlantic Wet Heaths with <i>Erica Tetralix</i>	To maintain the designated habitats in favourable condition.

Table 5.3: Relevant Conservation Objectives – Cannock Chase SAC

6. BREDON HILL SAC

6.1 QUALIFYING CRITERIA

The following information is taken from the Joint Nature Conservation Committee (JNCC) site description and accompanying site citation document, both of which are available at

<http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?EUCode=UK0012587>

Country:	England
Unitary Authority:	Worcestershire
Centroid:	SO 965 406
Latitude:	52 03 49 N
Longitude:	02 03 02 W
SAC EU Code:	UK0012587
Status:	Designated Special Area of Conservation (SAC)
Area (ha):	359.86

Bredon Hill SAC is known to be an important site for fauna associated with decaying timber on ancient trees, including many Red Data Book and Nationally Scarce invertebrate species. The site is dominated by non-forest areas cultivated with woody plants, and also includes areas of dry grassland, heath and scrub.

6.1.1 Qualifying Habitats

The site does not support any Annex I habitat types. Annex 1 habitats are neither a primary reason for selection or present as qualifying criteria.

6.1.2 Qualifying Species

The site qualifies under Article 4.1 of the Habitats Directive (92/43/EEC) as it supports a species of importance listed on Annex II of the Directive. This species is the violet click beetle *Limoniscus violaceus*. The SAC citation states that this site is one of only three known outstanding localities in the United Kingdom, and that the species is known from 15 or fewer 10 km x 10 km grid squares within the United Kingdom.

The JNCC site description states that this species “*was recorded at Bredon Hill in 1989, although there is a 1939 record from ‘Tewkesbury’, which may refer to Bredon Hill. It has been found in each of several years since. It is a very important site for fauna associated with decaying timber on ancient trees, including many Red Data Book and Nationally Scarce invertebrate species*”.

6.2 VULNERABILITY OF THE SAC

The issues to which the SAC is vulnerable are highlighted in Table 6.1. This information has been collated from sources including JNCC, Natural England and the original Warwickshire Wildlife Trust screening report.

ISSUE	DETAIL	SOURCE OF DATA
Lack of Replacement Deadwood	The key issue to which the violet click beetle is vulnerable is the lack of a replacement generation of trees for the current ancient trees over much of the site. Many of the younger generation of trees have been removed to increase stock grazing areas, meaning that the overall number of ancient trees suitable for this species is relatively small. Management agreements are being used to preserve existing tree stock and provide replacement planting.	JNCC SAC Citation
Air Pollution*	The site is at risk from an increase in NOx deposition as critical loading levels are already exceeded.	2008 WWT Screening Report Air Pollution Information System
Non-native / Invasive Species**	The young trees of desirable species are vulnerable to competition from invasive species.	2008 WWT Screening Report

Table 6.1: Summary of Vulnerability of Bredon Hill SAC

*Although air pollution was highlighted as a potential issue in the 2008 screening report, the consultation response received from Natural England highlighted the fact that neither the violet click beetle *Limoniscus violaceus* nor its favoured habitat of decaying timber are especially sensitive to airborne pollutants. Air pollution was not listed as a key vulnerability by JNCC.

**Non-native/invasive species are not listed as a key vulnerability by JNCC.

6.3 CONSERVATION OBJECTIVES

Conservation Objectives for the Bredon Hill SAC were provided by Mel Williams (Natural England) on 7th March 2012. The wider Bredon Hill site is designated as a SSSI; however the SAC designation does not cover this entire site. For the purpose of this assessment only those Conservation Objectives related to the SAC designation criteria are highlighted in Table 6.2. It should be noted that the names of the habitats are taken directly from the Natural England's Conservation Objectives report. They are broad habitat types, and as such are named differently to the specific habitats outlined in the SAC citation.

FEATURE	CONSERVATION OBJECTIVE
Violet Click Beetle	To maintain the designated species in favourable condition, which is defined in part in relation to their population attributes.
Wood Pasture	To maintain the wood pasture in favourable condition, with particular reference to relevant specific designated interest features.
Broadleaved Woodland	To maintain the broadleaved woodland in favourable condition, with particular reference to relevant specific designated interest features.

Table 6.2: Relevant Conservation Objectives – Bredon Hill SAC

The Conservation Objectives report notes that it is very important that no attempt should be made to measure the population size of the violet click beetle directly, as methods currently available to find the species lead to destruction of its habitat.

7. PEAK DISTRICT DALES SAC

7.1 QUALIFYING CRITERIA

The following information is taken from the Joint Nature Conservation Committee (JNCC) site description and accompanying site citation document, both of which are available at

<http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?EUCode=UK0019859>

Country:	England
Unitary Authority:	Derbyshire; Staffordshire
Centroid:	SK 142 550
Latitude:	53 05 29 N
Longitude:	01 47 16 W
SAC EU Code:	UK0019859
Status:	Designated Special Area of Conservation (SAC)
Area (ha):	2326.33

The Peak District Dales SAC is a large site located within the wider Peak District National Park; the most visited National Park in the UK. It is made up of a variety of component SSSIs, and incorporates a wide range of habitat types including dry grassland, broadleaved woodland, mesophilic grassland, heath and scrub, marshland and bodies of standing water.

7.1.1 Qualifying Habitats

The site qualifies under Article 4.1 of the Habitats Directive (92/43/EEC) as it supports seven habitats of European importance listed on Annex I of the Directive. Two of these habitat types are listed as primary reasons for site selection. These are: semi-natural dry grassland and scrubland on calcareous substrates (*Festuco-Brometalia*); and *Tilio-Acerion* forests of slopes, screes and ravines.

The JNCC site description states that “*Peak District Dales is one of the most extensive surviving areas in England of CG2 Festuca ovina – Avenula pratensis grassland. Grasslands at this site range from hard-grazed short turf through to tall herb-rich vegetation, with transitions through to calcareous scrub and 9180 Tilio-Acerion forests – a diversity of structural types unparalleled in the UK. There is also a great physical diversity due to rock outcrops, cliffs, screes and a variety of slope gradients and aspects. In contrast to examples of Festuca – Avenula grassland on chalk to the south, these grasslands are less at risk from the threat of invasion by upright brome Bromopsis erecta and tor-grass Brachypodium pinnatum, which are at the edge of their range here and have limited vigour. The relatively cold oceanic nature of the climate means that there is enrichment with northern floristic elements, such as limestone bedstraw Galium sternerii and globeflower Trollius europaeus.*

With regard to the *Tilio-Acerion* forests, JNCC state “*Representing the north-central part of its UK range, this site in the English Midlands contains a large area of Tilio-Acerion, dominated by ash Fraxinus excelsior. Locally, sycamore Acer pseudoplatanus is abundant. The Dales provide good examples of woodland-scrub-*

grassland transitions, with associated rich invertebrate populations and plant communities. Among the uncommon plants present in the woods are mezereon *Daphne mezereum* and green hellebore *Helleborus viridis*, as well as whitebeams *Sorbus spp.* on the crags”.

The five remaining Annex 1 habitats within the SAC are all listed as qualifying criteria, but are not primary reasons for site selection. They are: European dry heaths; calaminarian grasslands of the *Violetalia caliminariae*; alkaline fens; calcareous and calcshist screes of the montane to alpine levels (*Thlaspietea rotundifolii*); and calcareous rocky slopes with chasmophytic vegetation.

The quality and importance of the qualifying habitats, as detailed in the site citation, are summarised in Table 7.1.

QUALIFYING HABITAT	SITE COVERAGE (%)	QUALITY AND IMPORTANCE
Semi-natural Dry Grassland and Scrubland on Calcareous Substrates (<i>Festuco-Brometalia</i>);	42.3 %	Peak District Dales SAC is considered to be one of the best areas in the United Kingdom.
<i>Tilio-Acerion</i> Forests of Slopes, Scree and Ravines	37.5 %	Peak District Dales SAC is considered to be one of the best areas in the United Kingdom.
European Dry Heaths	0.5 %	Peak District Dales SAC is considered to support a significant presence.
Calaminarian Grasslands of the <i>Violetalia caliminariae</i>	0.6 %	Peak District Dales SAC is considered to support a significant presence.
Alkaline Fens	0.1 %	Peak District Dales SAC is considered to support a significant presence.
Calcareous and Calcshist Scree of the Montane to Alpine Levels (<i>Thlaspietea rotundifolii</i>);	1.2 %	Peak District Dales SAC is considered to support a significant presence. This habitat type is considered to be rare as its total extent in the United Kingdom is estimated to be less than 1000 hectares.
Calcareous Rocky Slopes with Chasmophytic Vegetation	0.5 %	Peak District Dales SAC is considered to support a significant presence. This habitat type is considered to be rare as its total extent in the United Kingdom is estimated to be less than 1000 hectares.

Table 7.1: Quality and Importance of Qualifying Habitats for Peak District Dales SAC

7.1.2 Qualifying Species

The site qualifies under Article 4.1 of the Habitats Directive (92/43/EEC) as it supports three species of importance listed on Annex II of the Directive. One of these species is listed as being a primary reason for site

selection: white-clawed crayfish *Austropotamobius pallipes*. The site citation identifies this species as being common within the SAC.

Two additional Annex II species that are listed as qualifying criteria but are not primary reasons for site selection are both fish species. These are bullhead *Cottus gobio* and brook lamprey *Lampetra planeri*. Both species are described in the site citation as being present within the SAC.

The citation also references the presence of otter *Lutra lutra* within the SAC, although this is not identified as a qualifying species in the JNCC site description.

7.2 VULNERABILITY OF THE SAC

The issues to which the SAC is vulnerable are highlighted in Table 7.2. This information has been collated from sources including JNCC, Natural England and the 2008 Warwickshire Wildlife Trust screening report.

ISSUE	DETAIL	SOURCE OF DATA
Inappropriate Grazing Management	The main threat to the limestone grasslands of the Peak District Dales is inappropriate grazing management. The ideal management for nature conservation purposes - light grazing throughout most of the year, with a break in grazing during the spring and early summer - tends to conflict with today's agricultural regimes. The result is either neglect and invasion by scrub, or overgrazing and the loss of the important vegetation communities. A number of the daleside grasslands are managed as part of a larger grazing unit with the richer improved plateau lands, with the result that any regulation of stocking levels in the dales becomes difficult. Some of the dalesides are now managed under Countryside Stewardship, which has brought about considerable improvements in their management. Similarly since 1996 English Nature's White Peak Wildlife Enhancement Scheme has been successful in attracting land managers and enhancing the conservation value of sites.	JNCC SAC Citation
Drainage	Proposed developments have the potential to interfere with drainage patterns within the site.	JNCC SAC Citation
Dust Arising from Nearby Quarrying	The impact of dust from quarrying needs to be assessed. Potential adverse effects arising from such proposals will be dealt with under the provisions of the Habitats Regulations.	JNCC SAC Citation
Impacts on Freshwater from Fishery Activities	There will be a need to work closely with game fishing interests to ensure that fishery management does not adversely affect the freshwater features of the cSAC. The same is true of shooting tenants, who may impact on the overall ecology of the woodland.	JNCC SAC Citation
Recreational Pressure*	Tourism to the site is likely to increase, which could have a significant impact on soil erosion and vegetation disturbance.	2008 WWT Screening Report

Table 7.2: Summary of Vulnerability of Peak District Dales SAC (continues)

ISSUE	DETAIL	SOURCE OF DATA
Impacts to Woodlands	<p>The woodlands within the SAC occupy very steeply-sloping dalesides, where access is always going to be problematic, and development pressures are therefore limited. Existing permission for limestone or mineral extraction is a potential threat to some of the woodlands on one part of the site. This will be addressed through the planning review procedures under the Habitats Regulations. Neglect has resulted in invasion by non-native species in some woods. This is now being addressed where possible through management under a Wildlife Enhancement Scheme. In some areas access by grazing livestock to some of the woodlands has resulted in a degraded ground flora, and limited regeneration of the shrub and canopy species. Once again, this is to be addressed, wherever practicable, through the Wildlife Enhancement Scheme.</p>	JNCC SAC Citation
Dominance and Regeneration of Sycamore	<p>The dominance of sycamore and its regeneration potential are a problem whilst it is considered a non-native part of the woodland. Removal of sycamore with the eventual aim of eradication would be a very long-term goal. Assessment of the status of sycamore (naturalised?) is needed to put in perspective eradication proposals. Some mature sycamore should be left as veterans. This will in part make up for the fact that there are few veteran trees in the woods. To have a natural and diverse age structure is therefore a long-term aspiration. In addition to grassland and woodland there are a range of scrub communities some of which are valuable for nature conservation. They are a key part of natural woodland and an open daleside. The scrub also illustrates how neglected grassland will revert to woodland whilst grazed woodland may not regenerate. The balance between woodland, grassland and scrub needs to be struck.</p>	JNCC SAC Citation
Air Pollution*	<p>The site lies downwind of Solihull Borough, therefore is likely to receive a greater volume of dispersed airborne pollutants from aircraft and vehicular emissions. The degree to which air pollution may affect this site was unclear at the time of the 2008 screening report.</p>	2008 WWT Screening Report

Table 7.2 (cont): Summary of Vulnerability of Peak District Dales SAC

**It is noted that neither recreational pressure or air pollution are considered to be a factor to which the site is vulnerable by JNCC.*

7.3 CONSERVATION OBJECTIVES

As detailed in Section 7.1, the Peak District National Park is composed of a wide range of individual SSSIs. Conservation Objectives are generally written for individual SSSI sites as opposed to SACs as a whole, therefore in order to give more manageable data the list of all component SSSI sites was filtered in the context of the findings of the 2008 Warwickshire Wildlife Trust screening report. A provisional list of over 60 SSSI sites was filtered to exclude those which do not fall within the SAC boundary, and those which are designated for purely geological reasons. This exercise identified the following 12 SSSI sites considered to be of relevance to the project brief:

- Ballidon Dale SSSI;

- Coombs Dale SSSI;
- Cressbrook Dale SSSI;
- Lathkill Dale SSSI;
- Long Dale and Gratton Dale SSSI;
- Long Dale, Hartington SSSI;
- Matlock Woods SSSI;
- Monks Dale SSSI;
- Rose End Meadow SSSI;
- The Wye Valley SSSI;
- Topley Pike and Deepdale SSSI; and,
- Via Gellia Woodlands SSSI

Table 7.3 summarises the broad Conservation Objectives for each of the habitat types occurring within the component SSSI sites. For the purpose of this assessment only those Conservation Objectives related to the SAC designation criteria (Annex I habitats and Annex II species) are highlighted. It should be noted that the names of the habitats are taken directly from the Natural England's Conservation Objectives reports. They are broad habitat types, and as such are named differently to the specific habitats outlined in the SAC citation.

At the time of writing it is not known whether the conservation objectives provided by Natural England are up-to-date, or have been superseded. Should any revised documents be provided, Table 7.3 will be updated.

FEATURE	CONSERVATION OBJECTIVE	NAME OF COMPONENT SSSI											
		Ballidon Dale	Coombs Dale	Cressbrook Dale	Lathkill Dale	Long Dale & Gratton Dale	Long Dale, Hartington	Matlock Woods	Monks Dale	Rose End Meadow	The Wye Valley	Topley Pike and Deepdale	Via Gellia Woodlands
Calcareous Grassland (Lowland)	To maintain the lowland calcareous grassland habitat at the SSSI in favourable condition, with particular reference to relevant specific designated interest features.	✓	✓	✓	✓	✓	✓	x	✓	✓	✓	✓	✓
Calcareous Grassland (Upland)	To maintain the upland calcareous grassland habitat at the SSSI in favourable condition, with particular reference to relevant specific designated interest features.	✓	x	(type not specified)	(type not specified)	x	✓	x	(type not specified)	x	(type not specified)	✓	x
Acid Grassland (Lowland)	To maintain the acid grassland at the SSSI in favourable condition, with particular reference to relevant specific designated interest features.	✓	✓	✓	✓	✓	✓	x	✓	x	✓	✓	x
Broadleaved, Mixed and Yew Woodland	To maintain the broad-leaved mixed and yew woodland habitat at the SSSI in favourable condition, with particular reference to relevant specific designated interest features.	x	✓	✓	✓	x	x	✓	✓	x	✓	✓	✓
Inland Rock	To maintain the inland rock habitat at the SSSI in favourable condition, with particular reference to relevant specific designated interest features.	x	✓	✓	✓	✓	✓	✓	✓	✓	x	✓	✓
Dwarf Shrub Heath (Lowland)	To maintain the dwarf shrub heath habitat at the SSSI in favourable condition, with particular reference to relevant specific designated interest features.	x	✓	x	✓	x	x	x	x	x	✓	x	x
Neutral Grassland (Lowland Meadow)	To maintain the neutral grassland habitat at the SSSI in favourable condition, with particular reference to relevant specific designated interest features.	x	✓	x	✓	✓	✓	x	✓	✓	x	x	✓
Calaminarian Grassland (Lowland)	To maintain the calaminarian grassland habitat at the SSSI in favourable condition, with particular reference to relevant specific designated interest features.	x	✓	x	x	✓		x	x	x	x	x	x
Fen, Marsh and Swamp	To maintain the fen, marsh and swamp habitat at the SSSI in favourable condition, with particular reference to relevant specific designated interest features.	x	x	x	x	x	x	x	✓	x	✓	x	x

Table 7.3: Summary of Conservation Objectives for Relevant Habitats Supported by Component SSSIs – Peak District Dales SAC

8. LOCAL DEVELOPMENT FRAMEWORK CORE STRATEGY

Solihull MBC's Local Development Framework Core Strategy, which has been in development for a number of years, will outline a long-term spatial vision of how the towns, villages and countryside within the Solihull MBC boundary will develop and change up to 2028. The LDF will replace policies saved from the current Solihull Unitary Development Plan (2006).

This assessment is based on the latest iteration of the LDF document, entitled Pre-submission Draft January 2012 (Solihull MBC, 2012). The key principles of this document with regard to potential impacts on the Natura 2000 network are summarised below. A broader discussion of the implications of the broad policy area objectives is provided in the 2008 Warwickshire Wildlife Trust screening report.

8.1 CURRENT SITUATION

The latest draft of the LDF includes an overview of the existing demographic status of the borough. Table 8.1 is adapted from this section of the document.

SOLIHULL BOROUGH – CURRENT STATISTICS	
Area of Borough	17,828 ha
Area of Green Belt	67 %
Population	206,100
No. of Households	86,747
Overage Car Ownership (in 2001)	1.28 cars per dwelling
Unemployment Claimant Rate	3.80 %
Average Lower Quartile House Price 2011	£155,000.00

Table 8.1: Latest Demographic Statistics for Solihull Borough

Based on these statistics, the average number of residents per household is calculated to be **2.38**. This figure is used in Section 8.2 to inform as estimated population increase as a result of the implementation of LDF Core Strategy policies.

8.2 SCOPE OF PROPOSED GROWTH AND DEVELOPMENT TO 2028

The current LDF Core Strategy has been developed based upon the West Midlands Regional Spatial Strategy (RSS) Phase 2 Revision Draft Preferred Option (West Midlands Regional Assembly, 2007), and subsequent revisions and amendments.

The LDF includes 20 policies designed to achieve sustainable growth within the Borough. These policies are divided into six broad categories: Sustainable Economic Growth; Providing Homes for All; Improving Accessibility and Encouraging Sustainable Travel; Protecting and Enhancing our Environment; Promoting Quality of Place; and Supporting Local Communities. The key principles and objectives of these policies are highlighted in Table 8.2.

POLICY	KEY PRINCIPLES AND OBJECTIVES
A. Sustainable Economic Growth	
P1: Support Economic Success	The council will support the continued development of the M42 Economic Gateway, including the NEC, Birmingham International Airport, Birmingham Business Park, Blythe Valley Country Park and Jaguar Land Rover.
P2: Maintain a Strong and Competitive Town Centre	Solihull Town Centre will be developed and sustained as a place of quality and distinction. It will provide the civic heart of the Borough and the principal focus of commercial activity and public transport. This will include: <ul style="list-style-type: none"> • Up to 57,000 m² (gross) of additional retail floorspace to 2026 (34,000 m² to 2021, then 23,000 m² to 2026) • Up to 35,000 m² (gross) of new office floorspace to 2026.
P3: Provision of Land for General Business and Premises	To encourage sustainable economic growth and provide a broad range of employment opportunities the Council will plan for a continuing supply of employment land. Solihull MBC has identified 38 ha of allocated land for employment, of which 26 ha is readily available. This excludes existing vacant business premises.
B. Providing Homes for All	
P4: Meeting Housing Needs	The council will require developers of allocated and unidentified sites to make a contribution to affordable housing on residential sites of 0.2 hectares or more, or housing developments of 3 or more (net) homes to meet the housing needs of the Borough.
P5: Provision of Land for Housing	The Council will allocate sufficient land for 4,040 net additional homes to ensure sufficient housing land supply to deliver 8,930 additional homes in the period 2011-2028. Based on the current average number of residents per household, this would lead to an approximate population increase of 21,253 .
P6: Provision of Sites for Gypsies and Travellers	The priority will be to meet the immediate identified need for 17 residential pitches by the end of 2012 as set out in the 2008 Gypsy and Traveller Accommodation Assessment. Provision of pitches beyond 2012 will be determined through a Gypsy and Traveller Site Allocations Development Plan Document in the light of up to date evidence.
C. Improving Accessibility and Encouraging Sustainable Travel	
P7: Accessibility and Ease of Access	All new development should be focused in the most accessible locations and seek to enhance existing accessibility levels and promote ease of access. Investment in improvements to local public transport provision, cycling and / or walking measures will be sought in association with development proposals which do not meet the accessibility criteria set out by this policy.
P8: Managing Demand for Travel and Reducing Congestion	All development proposals should have regard to transport efficiency and highway safety. The use of sustainable modes of transport, i.e. walking, cycling and public transport, shall be promoted and encouraged in all developments.
D. Protecting and Enhancing our Environment	
P9: Climate Change	The Council will take full account of national and local targets for reducing greenhouse gas emissions and increasing the generation of energy from renewable and low carbon sources, when considering the location and design of new development. Developers will be expected to follow a sequential approach to carbon reduction for all new development.
P10: Natural Environment	The Council will seek to protect, enhance and restore the diverse landscape features of the Borough and to create new woodlands and other characteristic habitats, so as to halt and where possible reverse the degrading of the Arden landscape and promote local distinctiveness. Development should take full account of national and local guidance on protecting and restoring the landscape and the areas in need of enhancement, including guidance relating to the countryside. Developers will be expected to incorporate measures to protect, enhance and restore the landscape, unless it is demonstrated that it is not feasible, disproportionate or unnecessary.

Table 8.2: Summary of LDF Policies and Potential Environmental Effects (continues)

POLICY	KEY PRINCIPLES AND OBJECTIVES
P11: Water Management	All new development should have regard to the actions and objectives of appropriate River Basin Management Plans in striving to protect and improve the quality of water bodies in and adjacent to the Borough, including the Rivers Blythe and Cole and their tributaries. The Council recognises the need for water efficiency in all new development. Developers shall demonstrate the highest possible standards of water efficiency through the use of water efficient fittings and appliances, and recycling of potable, grey water and rainwater in order to minimise consumption.
P12: Resource Management	The Council will promote and control new development to prevent the production of waste within the Borough wherever possible. Where this is not feasible, waste shall be treated as a resource to be reused, recycled, or from which value will be recovered, with management to be as high up the waste hierarchy as possible. Disposal of waste shall be a last resort, to be considered only when all other options have been exhausted.
P13: Minerals	The Council will permit the search for new minerals, including coal bed methane resources, whether within or outside the Mineral Safeguarding Areas, providing that the criteria for minerals development proposals are met. Permission for exploration will not necessarily imply that a subsequent consent for mineral extraction will be forthcoming.
P14: Amenity	The Council will seek to protect and enhance the amenity of existing and potential occupiers of houses, businesses and other uses in considering proposals for new development.
E. Promoting Quality of Place	
P15: Securing Design Quality	All development proposals will be expected to achieve good quality, inclusive and sustainable design.
P16: Conservation of Heritage Assets and Local Distinctiveness	The Council recognises the importance of the historic environment to the Borough's local character and distinctiveness and its cultural, social, environmental and economic benefits. Development proposals will be expected to demonstrate how these characteristics have been conserved.
P17: Countryside and Green Belt	The Council will safeguard the "best and most versatile" agricultural land in the Borough and encourage the use of the remaining land for farming. Development affecting the "best and most versatile" land will be permitted only if there is an overriding need for the development or new use, and there is insufficient lower grade land available, or available lower grade land has an environmental significance that outweighs the agricultural considerations, or the use of lower grade land would be inconsistent with other sustainability considerations. The Council will not permit inappropriate development in the Green Belt, except in very special circumstances.
F. Supporting Local Communities	
P18: Health and Wellbeing	The potential for achieving positive health outcomes will be taken into account when considering all development proposals. This will include improving the quality and quantity of the green infrastructure network in the Borough, particularly in the North Solihull Regeneration Area and in areas where green infrastructure is identified as lacking. The protection and enhancement of physical access, including public rights of way to open space and green infrastructure will also be supported.
P19: Range and Quality of Local Services	Solihull has a variety of local centres which need to be developed and sustained in a way which ensures their continued sustainability and economic success.
P20: Provision for Open Space, Children's Play, Sport, Recreation and Leisure	<p>The Council recognises the importance and multi-functional benefits of public open space, sports and recreational facilities within the Borough and will support the enhancement of existing facilities and open space. The Council will require provision for and maintenance of appropriate open space, sports and recreational facilities as an integral part of new development.</p> <p>The Council will support proposals that encourage greater recreational and leisure use and enhancement of the river and canal network providing that the development safeguards the historic and natural environment and purpose of the Green Belt, in accordance with Policies P10 – Natural Environment, P16 – Conservation of Heritage Assets and Local Distinctiveness and P17 – Countryside and Green Belt.</p>

Table 8.2 (cont): Summary of LDF Policies and Potential Environmental Effects

8.3 POTENTIAL ENVIRONMENTAL EFFECTS ARISING FROM POLICY OBJECTIVES

Table 8.3 summarises the likely environmental effects arising from the implementation of the LDF Core Strategy policies detailed in Table 8.2. For clarity, this table concentrates on effects of potential significance to the Natura 2000 network, and effects are listed for the six broad policy areas rather than on a policy-by-policy basis.

POTENTIAL EFFECT	DETAIL
A. Sustainable Economic Growth	
Air Quality	<p>Expansion of Birmingham International Airport will contribute to increased background air pollution. The Airport Master Plan (2007) forecasts that passenger related air transport movement will grow substantially to 2030 (2010 throughput 11.5m passengers/year, 2030 throughput 27.2m passengers / year).</p> <p>Conversely however, the proposed investment in the M42 Economic Gateway may alleviate future air pollution from road traffic by reducing the need to commute out of the borough to a place of work.</p>
B. Providing Homes for All	
Recreational Pressure	<p>An increase in over 21,000 residents over the plan period is likely to increase recreational pressure, both on existing nature conservation sites within the borough and on 'honey-pot' sites outside of the borough boundary.</p> <p>It is anticipated that sites within the Natura 2000 network could experience an increase in recreational use as a result of the proposed increase in housing numbers.</p>
Air Quality	<p>Transportation of resources into the borough to meet the demands of a growing population may lead to an increase in background air pollution levels.</p> <p>An increased population could lead to an increase in the number of private vehicles. Based on the current figure of 1.28 cars per dwelling (see Table 8.1), the proposed number of new dwellings would lead to an increase of 11,430 vehicles assuming current ownership levels are maintained. This would contribute towards an increase in background levels of air pollution.</p>
C. Improving Accessibility and Encouraging Sustainable Travel	
Air Quality	<p>The proposed investment in the public transport infrastructure and the use of sustainable modes of transport such as walking and cycling could offset some of the perceived increase in air pollution arising from an increase in numbers of private vehicles.</p> <p>Strategies targeted at reducing congestion may also help to offset increases in background air pollution.</p>
D. Protecting and Enhancing our Environment	
Recreational Pressure	<p>Investment in the protection, enhancement and restoration of nature conservation resources within the borough will help to alleviate recreational pressure on nature conservation sites outside of the borough boundary, potentially including sites within the Natura 2000 network.</p>
Green Infrastructure	<p>The creation of new areas of managed greenspace within the borough will help to create habitat linkages between existing nature conservation sites. This will help to preserve the integrity of the ecological resource within the borough, and will indirectly benefit nature conservation sites outside of the borough.</p>
Air Quality	<p>The council's commitment to reducing greenhouse gas emissions and investing in renewable energy will help to mitigate background air pollution levels.</p> <p>The council's objectives pertaining to waste generation should result in fewer waste transfer journeys, which will positively contribute towards reducing background air pollution arising from the waste management process.</p>

Table 8.3: Summary of Potential Environmental Effects of Broad Policy Areas (continues)

POTENTIAL EFFECT	DETAIL
E. Promoting Quality of Place	
Air Quality	The preservation of the green belt will maintain the carbon sequestration capacity of the borough's greenspace.
Recreational Pressure	The council's objective of developing lower grade land and preventing inappropriate development of the green belt will ensure that the green belt is retained as an amenity resource (e.g. for walking). This will help to avoid people being pushed outside of the borough to undertake leisure activities, which will alleviate recreational pressure on nature conservation sites including those that form part of the Natura 2000 network.
F. Supporting Local Communities	
Recreational Pressure	Investment in public open space will help to alleviate recreational pressure on nature conservation sites outside of the borough boundary, potentially including sites within the Natura 2000 network. Proposals to encourage greater recreational and leisure use of the river and canal network within the borough also have the potential to alleviate pressure on nature conservation sites outside of the borough boundary. This is of potential significance to the Cannock Extension Canal SAC.
Water Quality	Increased use of the river and canal network for leisure and recreation has the potential to increase levels of water pollution within the borough, e.g. hydrocarbon spillages from boats. This may have an indirect impact upon watercourses outside of the borough that have connectivity to the Solihull MBC river and canal network.

Table 8.3 (cont): Summary of Potential Environmental Effects of Broad Policy Areas

Chapter 9 provides detail regarding other local/regional plans and policies which are considered in combination with the Solihull MBC LDF Core Strategy when assessing the likelihood of significant effects on the Natura 2000 network.

A site-by-site discussion of potential significant effects is provided in Chapter 10.

9. OTHER PLANS CONSIDERED IN COMBINATION

The best practice methodology for the evidence gathering and screening stage of the Appropriate Assessment process states that the potential for a plan to impact upon any part of the Natura 2000 network should be considered 'either alone, or in combination with other projects or plans'. As such it is necessary to consider the potential for the LDF Core Strategy policies to impact upon the Natura 2000 network both on their own merit and cumulatively with other local plans. The scoping response received from Natural England on 19th March 2012 confirmed that they welcome the recognition given to in-combination effects in the 2008 Warwickshire Wildlife Trust screening report.

9.1 SUMMARY OF PLANS CONSIDERED IN COMBINATION

The relevant evidence base to be considered in combination with the Solihull MBC plan were defined based on a review of the 2008 Warwickshire Wildlife Trust screening report, a web-based desk study search, and consultation with Maurice Barlow (Principal Planning Officer, Sustainable Development Team, Solihull MBC). Other local plans considered 'in combination' fall into three broad categories. These are:

- The overall West Midlands plan, which gives housing targets for all local authorities within the West Midlands region;
- Relevant plans and strategies for areas bordering or in close proximity to Solihull Borough; and,
- Other documents of relevance to specific Natura 2000 sites.

The plans considered 'in combination' are summarised in Table 9.1, and key policy objectives are listed. This table also details whether the plan has been subject to a Habitat Regulations Appropriate Assessment. Where specific Core Strategies have yet to be published, proposed increased in housing numbers to 2026 are taken from the West Midlands Regional Spatial Strategy Phase II Revision Panel Report (September 2009). This document is now defunct, but has been used as the basis for the development of many of the policies within individual local Core Strategies, and proposed housing numbers broadly correlate with those in the local documents.

PLAN	OUTCOME OF KEY OBJECTIVES	HAS PLAN BEEN SUBJECT TO HRAA?
A. Overall West Midlands Regional Spatial Strategy		
West Midlands Regional Spatial Strategy Phase II Revision	397,900 new homes in the West Midlands Region in the period 2006 – 2026. Policies targeted at employment, climate change, sustainable transport, waste management, biodiversity and green infrastructure.	Yes
NB: <i>This document, recently defunct, provides a strategic vision for the growth of the entire West Midlands region, including Solihull Borough. The proposed housing numbers and other objectives within the strategy are the basis for many of the local Core Strategies that have been developed subsequently, therefore this document still provides a valuable contribution to the evidence base.</i>		

Table 9.1: Summary of Key Policy Objectives of Plans Considered in Combination (continues)

PLAN	OUTCOME OF KEY OBJECTIVES	HAS PLAN BEEN SUBJECT TO HRAA?
B. Relevant Plans and Strategies For Areas Bordering or in Proximity to Solihull Borough		
Birmingham Core Strategy 2026	<p>38,900 new homes in period 2010 – 2026 (total of 50,600 over period 2006 – 2026).</p> <p>100,000 new jobs by 2026.</p> <p>Policies targeted at 60% carbon reduction, protection of biodiversity, sustainable waste management.</p> <p>Improved public transport network.</p>	Yes
Coventry Proposed Core Strategy 2011	<p>Plan is still in development.</p> <p>West Midlands RSS Revision II predicts a net increase of 33,500 houses in Coventry in the period 2006 – 2026.</p>	Yes (screening of consultation draft)
Stratford Upon Avon Draft Core Strategy 2012	<p>8,000 new homes over period 2008 – 2028 (2,400 already built or in construction at April 2011).</p> <p>Provision will be made for 25 – 30 hectares of employment land over the period 2008 – 2028.</p> <p>Policies targeted towards biodiversity enhancement and enhancement and green infrastructure.</p> <p>Policies to increase investment in tourism development, enhance recreation facilities and promote sustainable transport.</p>	Yes
Warwick District Council Local Plan	<p>Plan is still in development.</p> <p>West Midlands RSS Revision II predicts a net increase of 11,000 houses in Warwick in the period 2006 – 2026.</p>	No
Bromsgrove District Council Draft Core Strategy 2 (Jan 2011)	<p>Strategy targets 4,000 new homes over period up to 2021. Strategy to be reviewed in 2021 to assess feasibility of providing 2,000 to 3,000 more homes.</p> <p>Policies proposed to safeguard existing employment areas.</p> <p>Policies to promote sustainable transport, safeguard the natural environment and promote green infrastructure. Also policies to address climate change and water management.</p>	Yes (draft only)
North Warwickshire LDF Core Strategy	<p>Plan is still in development.</p> <p>Draft document targets 3,000 new homes over the period 2006 – 2026.</p> <p>Provision for a minimum of 44 hectares of employment land will be made.</p>	Yes (draft only)

Table 9.1 (cont): Summary of Key Policy Objectives of Plans Considered in Combination (continues)

PLAN	OUTCOME OF KEY OBJECTIVES	HAS PLAN BEEN SUBJECT TO HRAA?
Joint Core Strategy for the Black Country	<p>Strategy supports the delivery of 63,000 new homes in line with the West Midlands RSS.</p> <p>Plan also includes policies targeted at employment, sustainable transport, waste management, climate change and nature conservation.</p>	Yes
Rugby Borough Council Core Strategy	<p>10,800 new homes within the borough in the period 2006 – 2026.</p> <p>67 hectares of new employment land in the period 2006 – 2026, plus 20,100m² of retail floorspace and 30,000m² of new office development.</p> <p>Policies targeted at enhancing green infrastructure.</p>	Yes
Nuneaton and Bedworth Borough Plan	<p>Plan is still in development.</p> <p>West Midlands RSS Revision II predicts a net increase of 11,000 houses in Nuneaton and Bedworth in the period 2006 – 2026.</p>	No
Tamworth Core Strategy: Housing Policy Consultation 2011	<p>Final Core Strategy still in development.</p> <p>Targeted net increase of 2,900 dwellings in the period 2006 – 2026.</p>	Yes, combined with Lichfield District.
C. Other Plans for Areas in Proximity to Relevant Natura 2000 Sites		
Cannock Chase Core Strategy Pre-publication Draft 2010	<p>At least 6,800 homes to be built within the district in the period 2006 – 2026. These homes will be constructed in 4 key urban areas, with only small scale housing permitted in rural areas.</p> <p>Overall target of 112 hectares of employment land in the period 2006 – 2026.</p> <p>Policies targeted towards climate change and biodiversity protection and enhancement, including a commitment to maintain the integrity of the Cannock Chase SAC by permitting no development within 400 m and requiring mitigation for any development within 12 km.</p>	Included in overall document relating to Cannock Chase SAC.
South Staffordshire Core Strategy	<p>At least 3,675 new homes in South Staffordshire in the period 2006 – 2027.</p> <p>171.76 hectares of land available for employment use in the period 2006 – 2027.</p> <p>Policies regarding protection and enhancement of biodiversity and measures to address climate change.</p>	Included in overall document relating to Cannock Chase SAC.
Stafford Borough Core Strategy	<p>Core strategy development still ongoing.</p> <p>West Midlands RSS Revision II predicts a net increase of 11,000 houses in Stafford in the period 2006 – 2026.</p>	Included in overall document relating to Cannock Chase SAC.

Table 9.1 (cont): Summary of Key Policy Objectives of Plans Considered in Combination (continues)

PLAN	OUTCOME OF KEY OBJECTIVES	HAS PLAN BEEN SUBJECT TO HRAA?
East Staffordshire Core Strategy	<p>Core strategy development still ongoing.</p> <p>West Midlands RSS Revision II predicts a net increase of 13,000 houses in East Staffordshire in the period 2006 – 2026.</p> <p>Saved policies from the 2006 Local Plan indicate that development will be focused around larger settlements such as Burton and Uttoxeter.</p>	Yes
Lichfield District Core Strategy	<p>Aim to deliver 8,000 new homes between 2006 and 2026.</p> <p>Deliver 127.69 hectares of land for employment.</p> <p>Policies targeted at sustainable transport, protection and enhancement of the natural environment and addressing climate change.</p>	Yes, combined with Tamworth
South Worcestershire Development Plan (Public Consultation Document 2011)	<p>The development of the core strategy, incorporating Malvern Hills District, Wychavon District and Worcester City Councils is still in progress.</p> <p>The latest consultation draft targets a total of 20,361 new homes and 309 hectares of employment land across South Worcestershire between 2006 and 2030.</p> <p>Policies targeted at sustainable green infrastructure, sustainable transport, protecting and enhancing biodiversity and addressing climate change.</p>	Yes (for South Worcestershire Joint Core Strategy)
Staffordshire Moorlands District Council Core Strategy 2011	<p>Provision will be made for 5,500 net additional dwellings within the Staffordshire Moorlands region in the period 2006 – 2026. The main focus of future development will be in the settlements of Leek, Biddulph and Cheadle.</p> <p>Provision for at least 24 hectares of additional employment land in the period 2006 – 2026.</p> <p>Policies targeted towards improvements in public transport, protection and enhancement of biodiversity and enhanced green infrastructure.</p>	Yes
Derbyshire Dales and High Peak Joint Core Strategy	<p>Core strategy development still ongoing.</p> <p>Earlier consultation drafts target 10,000 new homes in the period 2006 – 2026, with 4,000 in the Derbyshire Dales region and 6,000 in the High Peak region. Housing will be concentrated in existing urban settlements.</p> <p>51 hectares of new employment land proposed in the period 2006 – 2026, with 16 hectares located in the Derbyshire Dales and 35 in the High Peak region.</p>	Yes

Table 9.1 (cont): Summary of Key Policy Objectives of Plans Considered in Combination (continues)

It is recognised that there are a variety of other plans and strategies (e.g. local transport plans) which could potentially be considered in addition to those detailed in Table 9.1, however it is considered that the policies

outlined in Table 9.1 are relevant to the sites taken forward for further screening and the known vulnerabilities of those sites. Consideration of these plans provides a robust evidence base to allow potential 'in combination' impacts to be assessed.

9.2 SUMMARY OF HRAA FINDINGS FOR PLANS CONSIDERED IN COMBINATION

For those plans or strategies listed in Table 9.1 where some level of HRAA has been undertaken, the findings are summarised below. Where impacts on sites included within this assessment are predicted, they are highlighted in bold.

9.2.1 West Midlands Regional Spatial Strategy Phase II Revision

The West Midlands Regional Spatial Strategy Phase II was subject to a screening exercise and Appropriate Assessment by URSUS Consulting Ltd and Treweek Environmental Consultants (2007). The screening exercise identified that proposed development across the entire West Midlands region to 2026 could have significant effects on the integrity of the following Natura 2000 sites:

- Brown Moss SAC (water quality);
- **Cannock Chase SAC (air pollution, recreational pressure and water abstraction);**
- **Cannock Extension Canal SAC (recreational pressure, water pollution);**
- Fenn's Whixall, Bettisfield, Wem and Cadney Mosses SAC (recreational pressure, air pollution);
- Fens Pool SAC (land take);
- Humber Estuary SAC (water abstraction from River Trent);
- Pasturefields Salt Marsh SAC (pollution during flooding events, water abstraction);
- **Peak District Dales SAC (recreational pressure, air pollution);**
- River Clun SAC (water quality, abstraction);
- River Dee and Bala Lake SAC (water abstraction, mortality to otters from traffic);
- River Mease SAC (water quality and abstraction, mortality to otters from traffic);
- River Wye SAC (water quality, abstraction and recreational pressure);
- Wye Valley and Forest of Dean Bat Sites SAC (disruption from changes in land use);
- Wye Valley Woodlands SAC (air pollution, land use affecting bat foraging areas);
- Severn Estuary cSAC/SPA and Ramsar Site (water abstraction, water quality, recreational pressure);
- Peak District Moors (South Pennine Moors Phase I) SPA (air pollution, recreational pressure and water abstraction);
- South Pennine Moors Phase II SPA (air pollution, recreational pressure);
- Midlands Meres and Mosses Phase I Ramsar Site (water quality and abstraction, recreational pressure, land take and invasive species); and,
- Midlands Meres and Mosses Phase II Ramsar Site (water quality and abstraction, recreational pressure, land take and invasive species).

Impacts on all other Natura 2000 sites were screened out. Each of the identified impacts on the sites listed above is assessed and initial avoidance and mitigation measures are made. These generally take the form of

recommended policy amendments to be implemented by local authorities within the West Midlands region rather than specific mitigation proposals, in accordance with the format and purpose of the RSS.

9.2.2 Birmingham Core Strategy 2026

The Birmingham Core Strategy 2026 was subject to a Habitat Regulations screening exercise by UE Associates (2010a). A draft version of this report is available for download on the Birmingham City Council website; however at the time of compilation of this report the final version is not available for download. The draft report highlights that the implementation of the plan could have significant effects on the integrity of the following Natura 2000 sites:

- **Cannock Chase SAC (recreational pressure and air pollution);**
- Elan Valley Woodlands SAC (water abstraction);
- Elenydd SAC (water abstraction);
- Elenydd Mallaen SPA (water abstraction);
- Humber Estuary SAC/SPA/Ramsar Site (water abstraction); and,
- Severn Estuary cSAC/SPA/Ramsar Site (water abstraction).

Impacts on all other Natura 2000 sites were screened out. The draft report recommends that a full Appropriate Assessment of the above potential effects is undertaken; however this is not currently available. It is understood that a revised version of the Birmingham Core Strategy is to be published in 2012.

No avoidance measures or mitigation proposals are currently available for the Birmingham Core Strategy.

9.2.3 Coventry Proposed Core Strategy 2011

The Core Strategy for Coventry was subject to a Habitat Regulations screening exercise by Warwickshire County Council (2009). This report identified that the implementation of the plan could have significant effects on the integrity of the following Natura 2000 sites:

- Ensor's Pool SAC (recreational pressure and air pollution); and,
- Welsh Natura 2000 Sites (water abstraction).

Impacts on all other Natura 2000 sites were screened out. Recommendations are made regarding ongoing partnership with relevant stakeholders, and the implementation of policies to ensure that no significant effects on the above sites occur. No recommendation for further Appropriate Assessment is made.

9.2.4 Stratford Upon Avon Draft Core Strategy 2012

The draft Core Strategy for Stratford Upon Avon was subject to an Appropriate Assessment undertaken by Levett-Therivel Sustainability Consultants (2010). The screening element of the exercise identified that the implementation of the plan could have significant effects on the integrity of the following Natura 2000 sites:

- Fens Pool SAC (invasive species, land take, recreational pressure, water quality and levels);

- Lyppard Grange Ponds SAC (invasive species, land take, recreational pressure, water quality and levels);
- Severn Estuary cSAC/SPA/Ramsar Site (recreational disturbance, water quality and levels); and,
- River Wye SAC (land take, recreational disturbance, water quality and levels).

Impacts on all other Natura 2000 sites were screened out. The report provides an assessment of each of the identified impacts on the sites listed above, and makes specific recommendations for amendments to the Core Strategy to ensure that any significant effects are avoided or mitigated. These recommendations include drainage improvements to preserve water quality and the protection and enhancement of features of value to biodiversity within the borough.

9.2.5 Bromsgrove District Council Draft Core Strategy 2

The Bromsgrove District Council Core Strategy has been subject to a Habitat Regulations screening exercise; however no information is provided regarding who carried out the study (Bromsgrove District Council, No Date). This screening exercise concludes that the policies within the Core Strategy will not have significant effects on any Natura 2000 sites; therefore no recommendations for further assessment, avoidance or mitigation are made.

9.2.6 North Warwickshire LDF Core Strategy

North Warwickshire Borough Council's draft core strategy was subject to a Habitat Regulations screening exercise by Land Use Consultants Services in (2011). This exercise concluded that the policies within the Core Strategy will not have significant effects on any Natura 2000 sites; therefore no recommendations for further assessment, avoidance or mitigation are made.

9.2.7 Joint Core Strategy for the Black County

The Joint Core Strategy for the Black Country covers all local authorities within the Black Country area. The strategy was subject to both a Habitat Regulations screening exercise and full Appropriate Assessment undertaken by UE Associates in (2010b). The screening report identifies that the policies within the plan could have significant effects on the integrity of the following sites:

- **Cannock Chase SAC (air pollution, recreational pressure and disturbance);**
- Humber Estuary cSAC/SPA/ Ramsar Site (water quality); and,
- Severn Estuary cSAC/SPA/Ramsar Site (water quality and supply).

Impacts on all other Natura 2000 sites were screened out. The full Appropriate Assessment report (UE Associates, 2010c) provides an assessment of each of the identified impacts on the sites listed above, and provides recommendations to ensure that any adverse impacts arising from the Joint Core Strategy are avoided or mitigated. It concludes that all potential significant effects on Natura 2000 sites can be overcome.

9.2.8 Rugby Borough Council Core Strategy

Rugby Borough Council's Core Strategy was subject to a screening exercise by UE Associates (2009). This exercise concluded that the implementation of the plan will not have significant effects on any Natura 2000 sites; therefore no recommendations for further assessment, avoidance or mitigation were made.

9.2.9 Tamworth Core Strategy / Lichfield District Core Strategy

The Core Strategies for both Tamworth and Lichfield were subject to a combined Habitat Regulations screening exercise by Lichfield City Council in (2011). This exercise concluded that the implementation of the plans for Lichfield and Tamworth could potentially have significant effects on the integrity of the following Natura 2000 site:

- **Cannock Chase SAC (recreational pressure, air quality, impact on protected species and direct habitat loss).**

Impacts on all other Natura 2000 sites were screened out. The report makes reference to the recommendations of the Appropriate Assessment undertaken for Cannock Chase SAC by Footprint Ecology (2009), see Section 9.2.10. It is concluded that inclusion of a policy regarding financial contributions or other mitigation measures from developers to alleviate impact on the SAC should be considered in order to mitigate potential effects on the Natura 2000 network. No recommendations for further work were made.

9.2.10 Cannock Chase Core Strategy / South Staffs Core Strategy / Stafford Borough Core Strategy

The Core Strategy policies for Cannock Chase District, Lichfield District, South Staffordshire District and Stafford Borough are all taken into consideration within a bespoke evidence base / Appropriate Assessment produced for the Cannock Chase SAC by Footprint Ecology (2009). Unlike the other Habitat Regulations assessments considered, this document specifically relates to impacts upon a specific Natura 2000 site.

The assessment discusses the following potential effects on the integrity of Cannock Chase SAC that could arise from the policies within the four Core Strategies:

- Water Abstraction;
- Air Quality; and,
- Urban Effects, inc. Impacts from Recreation.

Each of these potential effects is discussed in depth, and recommendations are made regarding the avoidance and mitigation of potential effects. These recommendations include the compilation of a Visitor Impact Mitigation Strategy which was produced for the site by Footprint Ecology (2010). This report groups avoidance and mitigation into four broad areas: Habitat Management, Access Management and Visitor Infrastructure; Publicity, Education and Awareness Raising; and, Alternative Sites. The adoption of these recommendations by the four adjacent authorities should alleviate any potential significant effects on the SAC.

9.2.11 East Staffordshire Core Strategy

East Staffordshire Borough Council carried out a Habitat Regulations screening exercise of its draft Core Strategy policies in 2008. This document concluded that impacts on Natura 2000 sites are unlikely, but recommended that further assessment should be undertaken when the Preferred Option for the Core Strategy is finalised. At the time of compilation of this document production of the final Core Strategy for East Staffordshire is still in progress.

9.2.12 South Worcestershire Development Plan

The South Worcestershire Development Plan supersedes the South Worcestershire Joint Core Strategy. The Development Plan is still in development and has not been subject to any level of Appropriate Assessment yet, however an Appropriate Assessment screening exercise was undertaken for the Joint Core Strategy by Enfusion (2008). This document is considered to be part of the relevant evidence base.

This report, which considered potential effects on **Bredon Hill SAC**, concluded that the policies within the now-defunct Joint Core Strategy would not have any potential significant effects on any Natura 2000 sites. No recommendations for further assessment, avoidance or mitigation were made.

9.2.13 Staffordshire Moorlands District Council Core Strategy 2011

The draft Core Strategy for Staffordshire Moorlands was subject to a Habitat Regulations Appropriate Assessment in 2008, undertaken by Staffordshire Moorlands District Council. This initial assessment identified that the policies within the plan could have potential significant effects on the integrity of the following Natura 2000 sites:

- South Pennine Moors SAC (recreational pressure);
- **Peak District Dales SAC (recreational pressure);**
- **Cannock Chase SAC (recreational pressure);** and,
- Peak District Moors SPA (recreational pressure, disturbance to protected species).

Impacts on all other Natura 2000 sites were screened out. A revised assessment was published in late 2011, which updated the assessment of potential significant effects in accordance with mitigation measures proposed and amendments to the Core Strategy policies. This update concluded that, provided mitigation methods are adhered to, no residual significant effects on Natura 2000 sites are likely.

9.2.14 Derbyshire Dales and High Peak Joint Core Strategy

The Derbyshire Dales and High Peak Joint Core Strategy was subject to a Habitat Regulations screening exercise by Environ (2010a). This assessment concluded that the policies within the Joint Core Strategy could have significant effects on the following Natura 2000 sites:

- South Pennine Moors Phase II SPA (water demand, air pollution, renewable energy projects);
- Peak District Moors (South Pennine Moors Phase I) SPA (water demand, air pollution, water quality, renewable energy projects, pet predation, recreational pressure);

- **Peak District Dales SAC (water demand, air pollution, water quality);**
- South Pennine Moors SAC (water demand, air pollution, water quality, recreational pressure);
- Gang Mine SAC (air pollution);
- West Midlands Mosses SAC (water demand, air pollution);
- West Midlands Meres and Mosses Phase I Ramsar Site (water demand, air pollution); and,
- West Midlands Meres and Mosses Phase II Ramsar Site (water demand, air pollution).

Impacts on all other Natura 2000 sites were screened out. The full Appropriate Assessment report (Environ, 2010b) provides an assessment of each of the identified impacts on the sites listed above, and provides recommendations to ensure that any adverse impacts arising from the Joint Core Strategy are avoided or mitigated.

10. DISCUSSION OF POTENTIAL SIGNIFICANT EFFECTS ON NATURA 2000 SITES

The potential impacts of the Solihull MBC LDF Core Strategy policies on the Natura 2000 sites put forward for further screening, both independently and in combination with other plans, are discussed in Sections 10.1 to 10.4. Effects are summarised in Chapter 11.

10.1 CANNOCK EXTENSION CANAL SAC

Section 4.1.3 highlights that the favourable conservation status of the SAC is vulnerable to the following key issues:

- Lack of recreational use;
- Increased recreational use; and,
- Loss of water quality.

Cannock Extension Canal SAC, described by British Waterways as being a lesser used canal (British Waterways, No Date), is located 19.1 km from the Solihull MBC boundary, therefore no direct impacts upon the watercourse, e.g. direct loss of habitat, will occur.

10.1.1 Balance of Recreational Use

The favourable conservation status of the floating water plantain population for which Cannock Extension Canal is designated requires a certain level of recreational use or management of the watercourse in order to inhibit the growth of less desirable aquatic species. Uninhibited growth of these species may shade out the vulnerable plantain and result in the loss or depletion of the population. Conversely however, too much recreational use could harm the plantain population as a result of environmental impacts such as increased siltation or direct disturbance to the vegetation.

It is recognised from consultation with Natural England that any recreational pressure would need to be river-based, e.g. changes in the ambient level of boat passage along the canal, in order to have a significant effect on the designation criteria for the site. Increased recreational use of the canal for walking or cycling purposes is considered unlikely to have any impact upon the floating water plantain population as there is no obvious pathway between sources of potential effects and the key receptor.

The Cannock Extension Canal falls within the area covered by the Black Country Core Strategy. The strategy includes the following policy regarding the canal network:

“ENV4 Canals

The Black Country’s canal network is one of its most defining historical and environmental assets and its preservation and enhancement is a major objective in the Vision for environmental transformation and the delivery of Spatial Objective 6 (p18 and 20).

The Black Country canal network comprises the canals and their surrounding landscape corridors, designated and undesignated historic assets, character, settings, views and interrelationships. The canal network can provide a focus for future development through the potential to provide a high quality environment and accessibility. All development proposals likely to affect the canal network must:

- *safeguard the operation of a navigable and functional waterway;*
- *protect and enhance its special historic, architectural, archaeological and cultural interest (including potential to record, preserve and restore such features);*
- *protect and enhance its nature conservation value;*
- *protect and enhance its visual amenity;*
- *protect and enhance water quality in the canal.*

Where opportunities exist, all development proposals within the canal network must:

- *enhance and promote its leisure, recreation and tourism value;*
- *improve and promote walking, cycling and boating access, including for freight;*
- *promote beneficial and multifunctional use of the canal network.*

Such development proposals must be fully supported by evidence that the above factors have been fully considered and properly incorporated into their design and layout. Where proposed development overlays part of the extensive network of disused canal features, the potential to record, preserve and restore such features must be fully explored. Development will not be permitted which would sever the route of a disused canal or prevent the restoration of a canal link where there is a realistic possibility of restoration, wholly or in part”.

The Black Country Core Strategy makes numerous other references to the need to protect and enhance the canal network. Based upon this commitment to preserving the integrity of the canal network, the Habitat Regulations Appropriate Assessment of the strategy (UE Associates, 2010c) concludes that the construction of 63,000 additional homes in the Black Country region throughout the plan period will not lead to significant effects arising as a result of changes in recreational pressure, either alone or in combination with other plans.

The Solihull LDF Core Strategy includes for the provision of 8,930 new homes throughout the plan period, significantly fewer than the number proposed within the Black Country region. Whilst it is considered that the proposed housing numbers within Solihull Borough could contribute towards an increase in the ambient level of recreational use of the canal in combination with other plans, assuming the Black Country Core Strategy commitment to protecting and enhancing the canal network is adhered to no significant effects arising from changes in recreational use are perceived.

It is further noted that the Solihull LDF Core Strategy includes policies targeted towards enhancing and restoring the natural environment, improving the quantity and quality of green infrastructure within the borough and encouraging greater recreational use of the river and canal network within the borough. Delivery

of these objectives is considered likely to alleviate any potential increase in recreational pressure at the Cannock Extension Canal SAC by retaining leisure activity within Solihull Borough and minimising the need to travel elsewhere to meet leisure needs.

10.1.2 Water Quality

A further factor to which the favorable conservation status of the floating water plantain population is vulnerable is a decline in water quality. The JNCC SAC citation for the site identifies existing surface water run-off, principally from roads, as causing a reduction in water quality. The previous SOLIHULL MBC screening report undertaken in 2008 also identified increased air pollution as having the potential to contribute to a decline in water quality as a result of acid and nitrogen deposition.

Reference to the Habitat Regulations Appropriate Assessment undertaken for the Black Country Core Strategy (UE Associates, 2010c) concurs that the key issue regarding the favourable conservation status of the SAC is the potential for a decrease in water quality as a result of increased traffic along the A5, M6 Toll and other roads in the vicinity arising as a result of the developments proposed in the Core Strategy. The screening report does however present the findings of further investigation into the source of pollutants affecting water quality at the site, and a consultation response from Natural England is quoted which states *“It is now clear that any road drainage reaching the canal is only off a very short stretch of the B4154 and, as consequence, any increase in road traffic along this road resulting from the proposal of either your own authorities core strategy or that of The Black Country authorities. Indeed, it is now clear that the polluted water originates off Wyrley Common and matters are now in hand to resolve that issue. As a consequence, Natural England agrees that it is not necessary for you to proceed to the next stages of the HRA in terms of this particular issue”*.

The potential for adverse impacts on water quality arising from the Solihull LDF Core Strategies policies are predominantly associated with increased use of the road network in proximity to Cannock Extension Canal SAC leading to increases in runoff. The previously quoted correspondence from Natural England states that only a very short stretch of the B4154 results in road drainage that could enter the canal. This is a minor road, and given the distance of the SAC from Solihull Borough it is considered likely that any increases in traffic in proximity to the SAC as a result of Solihull LDF Core Strategy policies would be concentrated on major roads such as the A5 or M6 Toll, e.g. as a result of commuting to and from places of work. As the Solihull LDF Core Strategy includes policies that are considered likely to reduce the need to commute to workplaces outside of the borough it is concluded that no significant effects on the water quality of the Cannock Extension Canal SAC are likely, either independently or in combination with other plans.

10.1.3 Other Factors

No significant effects arising from any other sources are perceived, either alone or in combination with other plans.

10.2 CANNOCK CHASE SAC

Section 5.1.3 highlights that the favourable conservation status of the SAC is vulnerable to the following key issues:

- Recreational pressure;
- Bracken and scrub invasion;
- Hydrological issues; and,
- Air pollution.

Cannock Chase SAC is located 28.3 km from the Solihull MBC boundary; therefore no direct impacts, e.g. loss of habitat to development, will occur.

10.2.1 Recreational Pressure

Much of the Cannock Chase SAC falls within the well used Cannock Chase Country Park, therefore the sensitive Annex II habitats that the site supports are vulnerable to disturbance resulting from visitor pressure. Disturbance can arise from activities such as dog walking, horse riding, cycling and orienteering, which can create informal footpaths and erode areas of sensitive vegetation.

The site has been subject to a comprehensive study by Footprint Ecology (2009) in order to assess the impacts of the Core Strategies of four neighbouring local authorities on the integrity of the site. This study concluded that the implementation of the proposed Core Strategies for Cannock Chase District, South Staffordshire District, Lichfield District and Stafford Borough could result in an increase of approximately 9% in visits to the SAC. It concludes that it will not be possible to avoid these effects if development is undertaken within 400 m of the SAC, or where single large developments are undertaken within easy travel distance of the SAC. The Footprint Ecology report expands upon a precedent set at the Thames Basin Heaths SPA/SAC, and uses the findings of a study into the number and spatial distribution of visits to the wider Cannock Chase Area of Outstanding Natural Beauty undertaken in 2000 by Staffordshire University to calculate a theoretical 'zone of influence' for adverse effects arising from recreational pressure. This study identified that approximately 75% of visitors to the SAC come from within 12 miles of the SAC boundary; therefore 12 miles (19.3 km) is used as the zone of influence. The report does, however, include a caveat that large developments (>100 dwellings) outside of this zone of influence may have the potential to contribute to recreational pressure.

In order to mitigate for recreational pressure effects arising from within the zone of influence, Footprint Ecology recommended that a Visitor Impact Mitigation Strategy should be produced in order to ensure no net increase in recreational pressure and to aid the enhancement of the SAC. This document was compiled by Footprint Ecology in 2010. It provides avoidance and mitigation measures grouped into four key areas: Habitat Management; Access Management and Visitor Infrastructure; Publicity, Education and Awareness Raising; and Alternative Sites. The content of each of these key areas is summarised below.

- **Habitat Management**

- Joint Working: Highlights the need for cross boundary co-operation to address issues with potential to impact on SAC designation criteria.
- Heathland Re-creation: Outlines strategy for re-creating heathland and extending current habitat extent by removing planted conifers and controlling scrub/bracken encroachment. This section also highlights the need to consider potential future recreational use before undertaking heathland creation to avoid attracting notable species that may then be disturbed, and states that heathland creation should not be carried out within 200 m of a road due to pollution issues.
- Grazing: Highlights that the most significant step towards ensuring long-term health and survival of dwarf shrub heath would be the reinstatement of livestock grazing, which would keep growth of desirable species vigorous and would hinder the establishment of undesirable grass species. Detail regarding a feasibility study into reinstating grazing is given.
- Fire: Details the need to prevent and control wildfires within the heathland habitat, and suggests locations for the installation of new fire breaks.

- **Access Management and Access Infrastructure**

- Parking: Highlights the need for auditing and reviewing current car parking facilities, and confirms that a draft parking strategy is in preparation. Current issues associated with car parking facilities are listed, and recommendations for remedial action are made.
- Dog Walking: This section highlights the lack of clear information for dog walkers at the site. Recommendations for the provision of more information for dog walkers are made.
- Cycling: The need for clear wardening is highlighted to ensure that cycling is only undertaken in designated cycling areas, and that areas of key environmental sensitivity are avoided.
- Horse Riding: As with cycling, the promotion of specific areas of the site is recommended to avoid damage to sensitive features.
- Other Activities: Other leisure activities should be focused away from key areas within the SAC, and monitoring and liaison with local groups is highlighted as being essential to minimise impacts to the SAC.
- Phytophthora Outbreak: A current issue of concern at Cannock Chase, and one which can be spread by recreational activity, is a plant disease which affects bilberry. Continued monitoring and maintenance of control measures are highlighted as being important.
- Public Transport: Future proposals to establish a bus route through Cannock Chase are highlighted, the advantages of which in combination with car parking proposals are highlighted in the strategy. A recommendation for the route to concentrate on drop points outside of the SAC is made.
- Staff: The need for adequate staff resources is highlighted, in order to provide face-to-face contact with visitors and undertake wardening of the site, without the need to deflect other staff away from crucial habitat management tasks. The advantages of an increased staff presence are listed, and reference is made to a precedent set by the Dorset Urban Heaths Partnership.

- **Publicity, Education and Awareness Raising**
 - The need for additional publicity material, signage etc. is highlighted in order to support other measures within the strategy and to raise awareness regarding the nature conservation importance of the SAC. Specific recommendations for publicity material are made.

- **Alternative Sites**
 - The rationale behind provision of Suitable Alternative Natural Greenspace sites (SANGs) is outlined, and reference is made to precedents set at other sites, e.g. the Thames Basin Heaths. Recommended SANG provisions for each of the four local authorities that border or overlap the SAC are provided, in addition to criteria that SANGs should meet.

Providing that the proposals within the strategy are implemented they will allow the impacts of recreational pressure to be managed and will help to preserve the ongoing integrity of the SAC.

Solihull Borough is located 28.3 km from the edge of the Cannock Chase SAC, and as such is well outside the calculated zone of influence. The implementation of the policies within the Solihull LDF Core Strategy will undoubtedly result in an increase in visitor numbers to the SAC during the plan period, however provided the aforementioned Visitor Impact Mitigation Strategy is implemented and maintained it is considered that the visitor carrying capacity of the SAC will be increased and the deleterious impact of recreational pressure will be lessened. As such, no significant effects are considered likely as a result of increased recreational pressure, either alone or in combination with other plans.

In accordance with the recommendations of the original Footprint Ecology Appropriate Assessment report, however, it may be necessary to consider the impacts of any especially large developments within the borough on an individual basis. Where over 100 dwellings are proposed within a single development it may be desirable to seek developer contributions towards enhancing recreational sites within the borough, to encourage greater use of local recreational areas rather than vulnerable sites further afield such as Cannock Chase SAC, in addition to ensuring suitable public open space within the development footprint.

10.2.2 Bracken Invasion

The JNCC SAC citation for Cannock Chase highlights that bracken invasion is significant, but is being controlled. It also confirms that birch and pine scrub arising from surrounding commercial plantations is a key issue, and that management is hindered by the fact that much of the site is common land which requires Secretary of State approval before fencing can be installed. This means that management of scrub via livestock grazing is problematic.

Cannock Chase SAC will experience no significant increase in bracken or scrub invasion as a result of the implementation of any of the strategies within the Solihull LDF Core Strategy.

10.2.3 Hydrological Issues

The Annex I habitats which are the main designation criteria for the SAC are at risk from hydrological changes, resulting from mining fissures which occur across the site. These fissures result from the presence of coal measures beneath the site which have formally been deep mined. The implementation of the Solihull LDF Core Strategy will have no impact upon this issue.

A further known hydrological issue is that the underlying Sherwood Sandstone is a major aquifer from which water is abstracted for public and industrial uses. Implementation of the developments proposed within the Solihull LDF Core Strategy will require no abstraction from the Sherwood Sandstone aquifer, therefore no potential significant hydrological effects are perceived.

10.2.4 Air Pollution

The 2008 Warwickshire Wildlife Trust screening report for the Solihull LDF Core Strategy identifies air pollution as being a potential significant effect that could arise from the implementation of the plan, as NO_x deposition is already higher than the critical load. This is understood to be negatively impacting upon the heathland communities within the site, although air pollution is not considered to be a significant vulnerability by JNCC.

Reference to the Air Pollution Information System (APIS, 2012) indicates that NO_x deposition at Cannock Chase SAC in 2005 was 20.58 kg N/ha/yr, only marginally above the maximum critical load threshold of 20.00 kg N/ha/yr. Projected NO_x deposition figures for 2020 indicate that deposition will drop to 16.66 kg N/ha/yr based on the EUP30 scenario¹, which is well below the maximum critical load threshold. 2005 figures for acidity were already below the critical load threshold and are projected to decrease further by 2020.

APIS also provides information regarding the sources of air pollutants that are affecting the SAC, and the percentages of total pollutants arising from each source. Comparative sources and percentages of NO_x pollution for 2005 and 2020 are summarised in Table 10.1.

¹ *The Updated Energy Projects 30 scenario is based on up to date projections of energy usage and emissions in the UK, published annually by the Department of Energy and Climate Change. This incorporates all firm environmental policy measures and is based on updated assumptions consistent with UK budget announcements*

NOx Deposition at Cannock Chase SAC					
NOx Deposition 2005			Predicted NOx Deposition 2020*		
Source of Pollution	% Contribution	Kg N/ha/yr	Source of Pollution	% Contribution	Kg N/ha/yr
Livestock production	40.1	7.84	Livestock production	51.3	8.12
Other sources (individually <5%)	24.2	4.73	Other sources (individually <5%)	20.4	3.23
Imported emissions (e.g. from Europe)	12.9	2.52	Ammonia from non-agricultural sources	12.4	1.96
Ammonia from non-agricultural sources	12.2	2.38	Imported emissions (e.g. from Europe)	9.7	1.54
Road transport (buses, cars, HGVs etc)	10.7	2.1	Ammonia emissions from fertiliser use	6.2	0.98
Total		20.58	Total		16.66
<i>*Based on EUP30 Scenario</i>					

Table 10.1: Comparative NOx Deposition Sources for Cannock Chase SAC

Table 10.1 shows that as well as the total level of NOx deposition at Cannock Chase SAC decreasing by 2020, the sources from which the deposition will arise will also change. Agriculture is the highest source of NOx currently, and this will also be the case in 2020; however NOx deposition from road transport will reduce to less than 5% of the total, compared to a 2005 figure of 10.7%. This is likely to be a result of the proliferation of cleaner cars and fuels, and the fact that many older cars will come to the end of their useful life by 2020. As such, although overall levels of road use are likely to increase, NOx deposition from road sources will drop.

The Solihull LDF Core Strategy will not make a significant contribution to the level of air pollution arising from agricultural sources, either alone or in combination with other plans. The predicted increase in population within the borough will likely lead to an increase in the number of private cars; however this will be alleviated to some extent by policies targeted towards improvements in sustainable public transport and national and local targets for reductions in greenhouse gas emissions. As pollution arising from the road network is generally accepted to be concentrated within 200 m of a road (Department for Transport, 2011) it is considered that the majority of road-based air pollution will occur within Solihull Borough, as the likely increase in traffic within 200 m of the Cannock Chase SAC arising from within Solihull Borough is considered to be negligible. It is not considered that the Solihull LDF Core Strategy will result in a significant increase in road-based air pollution, either alone or in combination with other plans.

One element of the LDF Core Strategy that may have implications with regard to air pollution is the support for ongoing expansion of Birmingham Airport, although the Core Strategy does not include any policies which give specific objectives for further airport expansion beyond that already in progress. An extension of the airport runway was granted planning consent in 2009, and it is predicated that total passenger throughput will increase from 11.5 million passengers per year in 2010 to 27.2 million passengers per year by 2030. This is

considered likely to contribute to an increase in background levels of NO_x and other greenhouse gasses such as CO₂, although as with road travel this will be offset to some extent by policies targeted towards greenhouse gas reductions in accordance with national and local policy. Although the Cannock Chase site is located downwind of Solihull Borough, aviation was not listed as a key source of NO_x deposition at Cannock Chase SAC in 2005, and is not listed as a predicated key source in 2020, although it is likely to fall under the 'other sources' category. At this stage, due to the distance of the SAC from Birmingham Airport and based on a review of the evidence base, increased air pollution resulting from aviation is not considered likely to have a significant effect on the integrity of the site.

As a precautionary measure it is recommended that any further expansion of the airport proposed during the period covered by the LDF Core Strategy should be subject to an updated assessment regarding the potential impacts of air pollution on the Natura 2000 network. This assessment should identify the need for avoidance and mitigation measures, which should be agreed and implemented where appropriate.

With regard to possible in combination effects, the Appropriate Assessment carried out to determine effects on the SAC arising from the Core Strategy policies of the four local authorities covered by the SAC (Footprint Ecology, 2009) identifies pollutants arising from roads within a 200 m of the SAC as being a key issue. Recommendations are made for the surrounding local authorities to undertake air pollution modelling for any new housing in proximity to the SAC and to produce air qualities strategies to ensure that pollution issues are addressed. Provided these recommendations are adhered to, no significant in combinations effects are perceived as a result of the Solihull LDF Core Strategy.

10.2.5 Other Factors

No significant effects arising from any other sources are perceived, either alone or in combination with other plans. Providing the impacts of recreational pressure are managed in accordance with the Visitor Impact Mitigation Strategy (Footprint Ecology, 2010), particularly with regard to access and infrastructure, no adverse impacts on any Annex II species are perceived.

10.3 BREDON HILL SAC

Section 6.1.3 highlights that the favourable conservation status of the SAC is vulnerable to the following key issues:

- Lack of replacement deadwood;
- Air pollution; and,
- Non-native/invasive species.

Bredon Hill SAC is located 35.2 km from the Solihull MBC boundary; therefore no direct impacts, e.g. loss of habitat to development, will occur.

10.3.1 Lack of Replacement Deadwood

The JNCC SAC citation for Bredon Hill identifies the key issue to which the violet click beetle is vulnerable is the lack of a replacement generation to replace the existing ancient trees that occur on site. This could result in a loss of habitat for the violet click beetle in the long-term.

The implementation of the Solihull LDF Core Strategy will have no impact upon the availability of deadwood habitat within the SAC due to a lack of identified pathways.

10.3.2 Air Pollution

The 2008 Warwickshire Wildlife Trust screening report highlights APIS figures that show that the Bredon Hill SAC is at risk from NO_x deposition as critical loading levels are already exceeded. It is noted, however, that neither the violet click beetle or its favoured deadwood habitat are considered to be at risk from NO_x deposition, a fact that is also highlighted in a consultation response received from Natural England. Air pollution is not considered to be a key vulnerability by JNCC.

As the sole purpose of an Appropriate Assessment is to assess potential impacts of Natura 2000 designation criteria (i.e. Annex I habitats and Annex II species), it is therefore concluded that the implementation of the Solihull LDF Core Strategy will have no significant effect on the SAC as a result of air pollution.

It is further noted that the potential for significant effects on this SAC was also screened out at the initial stage of the Appropriate Assessment undertaken for the South Worcestershire Joint Core Strategy (now superseded). This authority is located much closer to the SAC than Solihull Borough, adding weight to the argument that this site can be screened out.

10.3.3 Non-native / Invasive Species

The initial 2008 screening report highlights that young trees of desirable species are vulnerable to competition from invasive species, although this is not highlighted as a key vulnerability by JNCC. There are no identified pathways by which Core Strategy policies could contribute to this impact, therefore no significant effects are perceived.

10.3.4 Other Factors

No significant effects arising from any other sources are perceived, either alone or in combination with other plans.

10.4 PEAK DISTRICT DALES SAC

Section 7.1.3 highlights that the favourable conservation status of the SAC is vulnerable to the following key issues:

- Inappropriate grazing management;
- Drainage;
- Dust arising from nearby quarrying;

- Impacts on freshwater from fishery activities;
- Recreational pressure;
- Impacts to woodlands; and,
- Dominance and regeneration of sycamore.

The Peak District Dales SAC is located 75 km from the Solihull MBC boundary; therefore no direct impacts, e.g. loss of habitat to development, will occur.

10.4.1 Inappropriate Grazing Management

The JNCC SAC citation for the Peak District Dales states that the main threat to the limestone grasslands of the dales is inappropriate grazing management, as the ideal management of the site tends to conflict with intensive modern agricultural regimes.

The Solihull LDF Core Strategy will have no impact on agricultural practices within the SAC boundary, either alone or in combination with other plans.

10.4.2 Drainage

The JNCC SAC citation identifies that proposed developments have the potential to interfere with drainage patterns within the SAC boundary.

Due to the large distance between the SAC boundary and Solihull Borough, there are no pathways via which the implementation of the LDF Core Strategy could impact upon drainage within the site, either alone or in combination with other plans.

10.4.3 Dust Arising from Nearby Quarrying

The JNCC SAC citation identifies that the impact of dust arising from quarrying needs to be assessed in accordance with the Habitat Regulations.

Due to the large distance between the SAC boundary and Solihull Borough and the nature of the plan, there are no pathways via which the implementation of the LDF Core Strategy could influence dust distribution within the SAC, either alone or in combination with other plans.

10.4.4 Impacts on Freshwater from Fishery Activities

The JNCC SAC citation identifies the need to work closely with game fishing interests to ensure that fishery management does not adversely affect the freshwater features of the site. It is noted that all Annex II species listed on the SAC citation are aquatic species.

There are no identified pathways by which the implementation of the Solihull LDF Core Strategy could have a significant effect upon fishery management, either alone or in combination with other plans.

10.4.5 Recreational Pressure

The 2008 Warwickshire Wildlife Trust screening report identifies recreational pressure as being a potential significant effect on the integrity of the SAC and recommends further screening once Core Strategy policies are refined. Despite this conclusion, it is noted that recreational pressure is not noted to be an area of key vulnerability by JNCC. Issues to which the site is known to be vulnerable are generally associated with land use and appropriate management.

In assessing the likelihood of significant effects arising as a result of increased recreational pressure from the implementation of the Core Strategy, it is important to consider which of the component SSSI's that make up the SAC are publically accessible and which are located within private land. This information, based on a review of the Multi-Agency Geographical Information for the Countryside (MAGIC) website, the Natural England website and subsequent consultation with Audra Hurst at Natural England (SSSI Lead Adviser – Peak District), is summarised in Table 10.2.

COMPONENT SSSI	IS SITE PUBLICALLY ACCESSIBLE?	NOTES
Ballidon Dale	Yes	Much of site is designated as CRoW* open access land.
Coombs Dale	Yes	Much of site is designated as CRoW open access land.
Cressbrook Dale	Yes	Much of the SSSI falls within the Derbyshire Dales National Nature Reserve.
Lathkill Dale	Yes	Much of the site falls within the Derbyshire Dales National Nature Reserve. Small areas outside of the NNR boundary are also designated as CRoW open access land.
Long Dale and Gratton Dale	Yes	A small part of the site falls within the Derbyshire Dales National Nature Reserve. The remainder of the site is designated as CRoW open access land.
Long Dale, Hartington	Yes	The entire site is designated as CRoW open access land.
Matlock Woods	No	Matlock Woods does not fall within any National Nature Reserve, and it not CRoW open access land.
Monks Dale	Yes	Much of the site falls within National Nature Reserve.
Rose End Meadow	No	No part of this site is publically accessible.
The Wye Valley	Yes	Much of site is designated as CRoW* open access land.
Topley Pike and Deepdale	Yes	Much of site is designated as CRoW* open access land.
Via Gellia Woodlands	No	Matlock Woods does not fall within any National Nature Reserve, and it not CRoW open access land.

*CRoW – Countryside Rights of Way Act 2000

Table 10.2: Summary of Which Component SSSIs are Publically Accessible – Peak District Dales SAC

Table 10.2 highlights that the majority of component SSSIs that make up the SAC are publically accessible. As such it is not possible to completely discount the potential for recreational pressure to occur within some of

these sites. The extent to which this recreational pressure would result from the implementation of the Solihull LDF Core Strategy is, however, questionable.

The Peak District National Park covers an area of 143,800 hectares (EFTEC, 2010), of which the Peak District Dales SAC occupies only 2326.33 hectares (JNCC, No Date). Reference to a 2005 visitor survey for the Peak District National Park (Peak District National Park Authority, 2005) identified that 95% of all surveyed visitors to the park had a home postcode in England, and that the largest proportion of respondents came from postcodes that fall within the confines of the National Park (such as Sheffield, Stockport and Derby). The report concludes that the nearer the postcode to the National Park, the larger the proportion of day visitors. A slight skew towards the East Midlands is noted, with more visitors visiting the park from the south east than any other direction. Visitors from the West Midlands conurbation, which includes Solihull Borough, were found to represent between 1% and 5% of the total number of day visitors.

Given the large distance between Solihull Borough and the SAC boundary, the visitor trends identified in the 2005 survey and the fact that the SAC only occupies a very small proportion of the wider National Park, it is therefore considered that the implementation of the Solihull LDF Core Strategy will result in no significant adverse impacts on the Peak District Dales SAC as a result of recreational pressure. This conclusion is reinforced by the fact that recreational pressure has not been identified as one of the key issues to which the site is vulnerable by JNCC.

In order to consider the potential for significant effects to occur in combination with other regional development plans, a review of Appropriate Assessment reports for authorities located in closer proximity to the Peak District Dales SAC than Solihull Borough has been undertaken. The conclusions of the Appropriate Assessments with regard to recreational pressure at the SAC are summarised in Table 10.3.

LOCAL PLAN	POSSIBLE SIGNIFICANT EFFECTS FROM RECREATIONAL PRESSURE?	DETAIL
West Midlands Regional Spatial Strategy Phase II Revision	Yes	Provisional avoidance and mitigation measures proposed. Report highlights the need for inter-regional measures to support habitat and access management measures, to be incorporated into regional plans.
Birmingham Core Strategy 2026	No	Impacts on Peak District Dales SAC not considered due to distance from site boundary.
Joint Core Strategy for the Black Country	No	Peak District Dales SAC screened out, as no significant impacts perceived from Core Strategy policies.
Tamworth/Lichfield Core Strategy	No	Impacts on Peak District Dales SAC not considered due to distance from site boundary.
North Warwickshire LDF Core Strategy	No	Impacts on Peak District Dales SAC not considered due to distance from site boundary.

Table 10.3: Significant Effects from Recreation Pressure in Other Core Strategy HRAAs (continues)

LOCAL PLAN	POSSIBLE SIGNIFICANT EFFECTS FROM RECREATIONAL PRESSURE?	DETAIL
Staffordshire Moorlands District Council Core Strategy 2011	Yes, but mitigated.	Possible significant effects from recreational pressure highlighted in original AA screening report, however Core Strategy subsequently amended to include reduced housing numbers and policies included to ensure no future development will impact integrity of Natura 2000 sites. Based on these changes, no significant effects on the Peak District Dales were perceived.
Derbyshire Dales and High Peak Joint Core Strategy	No	The appropriate assessment did identify that the Peak District Dales SAC could experience significant impacts, but these impacts were as a result of reduced air and water quality and increased water demand. No likely significant effects as a result of recreational pressure were identified.

Table 10.3 (cont): Significant Effects from Recreation Pressure in Other Core Strategy HRAAs

The above review highlights that the Habitat Regulations Appropriate Assessment work undertaken for a selection of local authorities in closer proximity to the Peak District Dales SAC, many of which proposed far greater increases in housing numbers than Solihull Borough, generally do not consider that significant effects are likely to arise as a result of increased recreational pressure. The Appropriate Assessment produced for the West Midlands Regional Spatial Strategy Phase II Revision (now defunct) identified that possible recreational pressure effects could arise from the cumulative redevelopment of the entire West Midlands region, however recommendations were made to ensure that this was addressed in individual regional/local plans.

Assuming that mitigation proposals and policy changes recommended for those authorities where Core Strategy policies could result in recreation pressure impacts are adhered to, no in-combination recreational pressure impacts arising from the Solihull LDF Core Strategy policies are perceived.

It is considered that the Core Strategy policies targeted towards protection enhancement and restoration of the natural environment within Solihull Borough (Policy 10), and towards enhancing green infrastructure and provision of open space, recreation and leisure facilities (Policies 18 and 20), provide an appropriate concession towards offsetting recreational pressure at a SAC site located 75 km from the borough boundary, and which is not especially vulnerable to recreational pressure.

10.4.6 Impacts to Woodlands

The JNCC SAC citation identifies that the woodlands that fall within the SAC are at risk from a range of factors, including issues relating to mineral extraction, neglect leading to invasion by non-native species, and deleterious impacts on woodland ground flora arising from livestock grazing. The citation notes that measures are in place to address each of these effects.

There are no identified pathways by which the Solihull LDF Core Strategies could contribute to any of the identified woodland impacts, either alone or in combination with other plans, therefore no significant effects to woodlands within the SAC are considered likely.

10.4.7 Dominance and Regeneration of Sycamore

The JNCC SAC citation identifies that the dominance of sycamore and its regeneration potential are problematic, as it is currently considered to be a non-native part of the woodland flora. It is noted that the presence of sycamore is impacting upon the desired balance between woodland, grassland and scrub habitats.

There are no identified pathways by which the Solihull LDF Core Strategies could contribute to the issue of sycamore regeneration within the SAC, either alone or in combination with other plans, therefore no significant effects are considered likely.

10.4.8 Air Pollution

The 2008 Warwickshire Wildlife Trust screening report identifies that air pollution is a potential significant effect on the integrity of the SAC, as the site lies downwind of Solihull Borough. It is noted, however, that the degree to which air pollution may affect the site is presently unclear. Air pollution is not considered to be an area of key vulnerability by JNCC.

Reference to the Air Pollution Information System (2012) indicates that the critical loads for NO_x deposition are already significantly higher than the maximum critical loads; however acid deposition is generally within the critical load threshold values. A summary of the status of NO_x deposition in relation to calculated maximum critical loads for each of the SAC designation features is detailed in Table 10.4. This table includes both known 2005 figures and predicated 2020 figures based on the EUP30 scenario.

SAC DESIGNATION FEATURE	MIN-MAX CRITICAL NOX DEPOSITION LOAD (KG N/HA/YR)	2005 FIGURE (KG N/HA/YR)	PREDICTED 2020 FIGURE (KG N/HA/YR)
Annex I Habitats			
Semi-natural Dry Grassland and Scrubland on Calcareous Substrates (<i>Festuco-Brometalia</i>);	15-25	33.74	28
<i>Tilio-Acerion</i> Forests of Slopes, Scree and Ravines	15-20	59.5	47.46
European Dry Heaths	10-20	33.74	28
Calaminarian Grasslands of the <i>Violetalia caliminariae</i>	15-25	33.74	28
Alkaline Fens	15-30	33.74	28
Calcareous and Calcshist Scree of the Montane to Alpine Levels (<i>Thlaspietea rotundifolii</i>);	5-15	33.74	28
Calcareous Rocky Slopes with Chasmophytic Vegetation	5-10	33.74	28
Annex II Species			
White-clawed Crayfish	Not defined	27.02	19.88
Bullhead	Not defined	27.02	19.88
Brook Lamprey	Not defined	27.02	19.88

Table 10.4: Comparison of Known and Predicted NOx Deposition for Designated Features

Table 10.4 demonstrates that 2005 NOx deposits were significantly above the calculated maximum critical loads for all SAC designation features that occur on site (where Critical Loads are given). NOx deposition is predicted to decrease in the period up to 2020, although it is still predicted to remain above the maximum critical load.

Table 10.5 provides information regarding the sources of air pollutants that are affecting the non-woodland habitats within the SAC, and the percentages of total pollutants arising from each source. Known 2005 data and predicted data for 2020 are given.

NOX DEPOSITION AT PEAK DISTRICT DALES SAC (NON-WOODLAND HABITATS)					
NOX DEPOSITION 2005			PREDICTED NOX DEPOSITION 2020*		
Source of Pollution	% Contribution	Kg N/ha/yr	Source of Pollution	% Contribution	Kg N/ha/yr
Livestock production	45.9	14.98	Livestock production	58.4	15.82
Other sources (individually <5%)	23.3	7.61	Other sources (individually <5%)	17.3	4.67
Imported emissions (e.g. from Europe)	17.1	5.6	Ammonia from non-agricultural sources	6.7	1.82

Table 10.5: Comparative NOx Deposition Sources for Peak District Dales SAC (continues)

NOx DEPOSITION AT PEAK DISTRICT DALES SAC (NON-WOODLAND HABITATS)					
NOx DEPOSITION 2005			PREDICTED NOx DEPOSITION 2020*		
Source of Pollution	% Contribution	Kg N/ha/yr	Source of Pollution	% Contribution	Kg N/ha/yr
Ammonia from non-agricultural sources	6.9	2.24	Imported emissions (e.g. from Europe)	11.9	3.22
Road transport (buses, cars, HGVs etc)	6.9	2.24	International shipping	5.7	1.54
Total		33.74	Total		28.00

*Based on EUP30 Scenario

Table 10.5 (cont): Comparative NOx Deposition Sources for Peak District Dales SAC

Table 10.5 shows that agricultural sources are responsible for a significantly higher proportion of NOx deposition than other sources, and that this is also likely to be the case in 2020. It is noted that road transport is a relatively minor source in 2005, and that it is predicated to drop to less than 5% of the total by 2020. This is likely to be a result of the proliferation of cleaner cars and fuels, and the fact that many older cars will come to the end of their useful life by 2020. As such, although overall levels of road use are likely to increase, NOx deposition from road sources will drop.

The Solihull LDF Core Strategy will not make a significant contribution to the level of air pollution arising from agricultural sources in proximity to the Peak District SAC, either alone or in combination with other plans. The predicted increase in population within the borough will lead to an increase in the number of private cars; however this will be alleviated to some extent by policies targeted towards improvements in public transport and national and local targets for reductions in greenhouse gas emissions. As pollution arising from the road network is generally accepted to be concentrated within 200 m of a road (Department for Transport, 2011) it is considered that the majority of road-based air pollution will occur within Solihull Borough, as the likely increase in traffic within 200 m of the Peak District SAC arising from within Solihull Borough is considered to be negligible. It is not considered that the Solihull LDF Core Strategy will result in a significant increase in road-based air pollution, either alone or in combination with other plans.

As is the case for Cannock Chase SAC, one element of the LDF Core Strategy that may have implications with regard to air pollution is the support for ongoing expansion of Birmingham Airport, although the Core Strategy does not include any policies which give specific objectives for further airport expansion beyond that already in progress. An extension of the airport runway was granted planning consent in 2009, and it is predicated that total passenger throughput will increase from 11.5 million passengers per year in 2010 to 27.2 million passengers per year by 2030. This is considered likely to contribute to an increase in background levels of NOx and other greenhouse gasses such as CO₂, although as with road travel this will be offset to some extent by policies targeted towards greenhouse gas reductions in accordance with national and local policy. Although the Peak District Dales site is located downwind of Solihull Borough, aviation was not listed as a key source of NOx deposition in 2005, and it not listed as a predicated key source in 2020 (although it is

likely to fall under the 'other sources' category). At this stage, due to the distance of the SAC from Birmingham Airport and based on a review of the evidence base, increased air pollution resulting from aviation is not considered to likely to have a significant effect on the integrity of the SAC.

As a precautionary measure it is recommended that any further expansion of the Birmingham Airport proposed during the period covered by the LDF Core Strategy should be subject to an updated assessment regarding the potential impacts of air pollution on the Natura 2000 network. This assessment should identify the need for avoidance and mitigation measures, which should be agreed and implemented where appropriate.

With regard to possible in combination effects, a review of the Appropriate Assessment reports produced for the Core Strategies for Staffordshire Moorlands and Derbyshire Dales and High Peak was undertaken. The Staffordshire Moorlands Appropriate Assessment does not identify any likely significant air pollution effects at the Peak District Dales SAC resulting from implementation of their Core Strategy. The Derbyshire Dales and High Peak Appropriate Assessment does however recognise that air pollution is a risk, principally at sites located within 200 m of roads. Recommendations are made for the local authority to undertake air pollution monitoring and to avoid development in locations that would significantly increase traffic along 'high risk' roads. Recommendations are also made for the local authority to strengthen other elements of their transport policy in order to alleviate impacts from traffic emissions. Provided that these avoidance and mitigation measures are implemented and adhered to, no in-combination effects are perceived.

10.4.4 Other Factors

No significant effects arising from any other sources are perceived, either alone or in combination with other plans.

11. SCREENING MATRIX

Table 11.1 provides a screening matrix summarising the findings of the further screening exercise.

SITE	FACTOR AFFECTING SITE INTEGRITY	POTENTIAL EFFECTS ARISING FROM CORE STRATEGY POLICIES	POTENTIAL EFFECTS IN COMBINATION WITH OTHER PLANS	SIGNIFICANCE OF EFFECTS
Cannock Extension Canal SAC	Balance of Recreational Use	Potential increased use of SAC to be offset by policies enhancing recreational sites within Solihull Borough, inc. the river and canal network.	None anticipated, assuming Black Country Core Strategy policies regarding protecting and enhancement the canal network are implemented and adhered to.	NLSE
	Loss of Water Quality	No direct impacts considered likely. Information from Natural England indicates majority of pollution to canal originates from Wyrley Common and is being addressed.	None provided that the key source of pollution of the canal (Wyrley Common) is addressed.	NLSE
Cannock Chase SAC	Recreational Pressure	Some increased use of the site is perceived, but numbers of visitors from within the borough are not considered likely to be significant. 2005 Visitor Survey indicates that around 75% of visitors to the SAC come from within a radius of 12 miles. Solihull Borough is 28.3 km from the SAC boundary.	Footprint Ecology has produced a Visitor Impact Mitigation Strategy for the site which provides avoidance and mitigation measures for the four local authorities that overlap the SAC. Provided these recommendations are implemented and adhered to, no in combination effects are anticipated.	NLSE
	Bracken Invasion	There are no indentified pathways for Core Strategy policies to influence bracken invasion at this SAC.	None anticipated.	NLSE
	Hydrological Issues	Core Strategy policies will not lead to any abstraction from the aquifer underlying the SAC.	None anticipated.	NLSE
Key: NLSE – No Likely Significant Effect PSE – Possible Significant Effect LSE – Likely Significant Effect				

Table 11.1: Assessment of Individual and In Combination Effects of Core Strategy Policies on Natura 2000 Sites (continues)

SITE	FACTOR AFFECTING SITE INTEGRITY	POTENTIAL EFFECTS ARISING FROM CORE STRATEGY POLICIES	POTENTIAL EFFECTS IN COMBINATION WITH OTHER PLANS	SIGNIFICANCE OF EFFECTS
Cannock Chase SAC	Air Pollution	APIS data predicts that NOx deposition will decrease to below the maximum critical load by 2020, and identifies agriculture as being the principal source of NOx. Providing Core Strategy Policies target towards sustainable transport and reductions in greenhouse emissions are implemented, no significant effects are perceived.	Provided local authorities surrounding the SAC implement suggested avoidance and mitigation measures, no in combination effects are perceived.	NLSE
Bredon Hill SAC	Lack of Replacement Deadwood	There are no identified pathways through which Core Strategy policies could impact upon the availability of deadwood habitat within the SAC.	None anticipated.	NLSE
	Air Pollution	Neither the Annex I species or its favoured habitat are particularly vulnerable to air pollution, therefore no significant effects are anticipated as a result of any Core Strategy policies.	None anticipated.	NLSE
	Non-native / Invasive Species	There are no identified pathways through which Core Strategy policies could impact upon the spread of non-native/invasive species.	None anticipated.	NLSE
Peak District Dales SAC	Inappropriate Grazing Management	There are no identified pathways through which Core Strategy policies could impact upon grazing management.	None anticipated.	NLSE
	Drainage	There are no identified pathways through which Core Strategy policies could impact upon drainage patterns.	None anticipated.	NLSE
Key: NLSE – No Likely Significant Effect PSE – Possible Significant Effect LSE – Likely Significant Effect				

Table 11.1 (cont): Assessment of Individual and In Combination Effects of Core Strategy Policies on Natura 2000 Sites (continues)

SITE	FACTOR AFFECTING SITE INTEGRITY	POTENTIAL EFFECTS ARISING FROM CORE STRATEGY POLICIES	POTENTIAL EFFECTS IN COMBINATION WITH OTHER PLANS	SIGNIFICANCE OF EFFECTS
Peak District Dales SAC	Dust Arising from Nearby Quarrying	There are no identified pathways through which Core Strategy policies could impact upon quarrying in proximity to the SAC.	None anticipated.	NLSE
	Impacts on Freshwater from Fishery Activities	There are no identified pathways through which Core Strategy policies could impact upon fishery management within the SAC.	None anticipated.	NLSE
	Recreational Pressure	This effect is not considered to be a key vulnerability by JNCC. The majority of component SSSIs are publically accessible, however given the large distance between the site and Solihull Borough and the proportion of daily visitors likely to emanate from the borough, no significant effects are perceived.	Provided avoidance and mitigation proposals suggested for those boroughs in proximity to the SAC are implemented, no in combination effects are perceived.	NLSE
	Impacts to Woodlands	The woodlands within the SAC are vulnerable to factors including mineral extraction, neglect and invasion by invasive species. There are no identified pathways through which Core Strategy policies could impact upon any of these factors.	None anticipated.	NLSE
	Dominance and Regeneration of Sycamore	There are no identified pathways through which Core Strategy policies could impact upon sycamore regeneration within the SAC.	None anticipated.	NLSE
Key: NLSE – No Likely Significant Effect PSE – Possible Significant Effect LSE – Likely Significant Effect				

Table 11.1 (cont): Assessment of Individual and In Combination Effects of Core Strategy Policies on Natura 2000 Sites (continues)

SITE	FACTOR AFFECTING SITE INTEGRITY	POTENTIAL EFFECTS ARISING FROM CORE STRATEGY POLICIES	POTENTIAL EFFECTS IN COMBINATION WITH OTHER PLANS	SIGNIFICANCE OF EFFECTS
Peak District Dales SAC	Air Pollution	<p>This effect is not considered to be a key vulnerability by JNCC.</p> <p>NOx deposition levels throughout the SAC are already significantly above maximum critical loads, however data provided by APIS indicates that agriculture is by far the largest source. The Core Strategy policies will not contribute to emissions arising from agriculture in proximity to the SAC.</p> <p>The key zone of influence for pollution arising from road traffic is a corridor of 200 m either side of a roadway. As such the majority of pollution arising from increased car use will be concentrated within the borough, and will be offset to some extent by policies targeted towards sustainable transport and greenhouse gas reduction.</p> <p>Due to the large intervening distance the Core Strategy is not likely to have a significant effect of air pollution within the SAC.</p>	<p>Provided that monitoring, avoidance and mitigation proposals recommended in the Derbyshire Dales and High Peak Core Strategy Appropriate Assessment are adhered to, not in combinations effects are perceived.</p>	NLSE
<p>Key: NLSE – No Likely Significant Effect PSE – Possible Significant Effect LSE – Likely Significant Effect</p>				

Table 11.1 (cont): Assessment of Individual and In Combination Effects of Core Strategy Policies on Natura 2000 Site

12. CONCLUSIONS AND PRECAUTIONARY RECOMMENDATIONS

In accordance with best practice guidance, further screening has been undertaken to assess whether the implementation of the Solihull MBC Core Strategy is likely to result in significant effects on the following Natura 2000 sites:

- Cannock Extension Canal SAC
- Cannock Chase SAC
- Bredon Hill SAC
- Peak District Dales SAC

Impacts on all other relevant Natura 2000 sites were screened out during a previous screening exercise undertaken by Warwickshire Wildlife Trust in 2008. Further screening was recommended for the four sites detailed above when Core Strategy policies has been further refined.

Based on a review of the available evidence base it is concluded that none of the Core Strategy policies will result in a significant effect on the Natura 2000 network, either alone or in combination with other local plans. It is not considered that any of the above sites should be subject to further stages of Appropriate Assessment.

In accordance with the precautionary principle, which is a key tenet underpinning the Appropriate Assessment process, it is considered appropriate to make recommendations for further works that may be required, depending on the nature and scale of individual developments undertaken in accordance with Core Strategy policies. The following precautionary recommendations are made:

R1 Further Airport Expansion

Should any further expansion of Birmingham Airport be proposed during the period covered by the Core Strategy, beyond that which has already been consented, the proposal should be subject to a screening exercise in order to define the likelihood of significant effects upon the Natura 2000 network. In particular any assessment should focus on the likely effects of increased air pollution that may arise. The assessment should provide sufficient detail to allow appropriate avoidance and mitigation measures to be designed and agreed with Natural England.

R2 Large Residential Developments

In accordance with a recommendation made in the Cannock Chase SAC Appropriate Assessment (Footprint Ecology, 2009), it is recommended that any the potential recreational impacts of any individual residential development that will result in a net increase of >100 dwellings are taken into consideration. For larger residential developments Solihull MBC may wish to seek developer contributions towards enhancing recreational sites and other greenspace within the borough, in addition to the provision of public open space within the development footprint.

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QUALITY ASSURANCE

**SOLIHULL METROPOLITAN BOROUGH COUNCIL
LOCAL DEVELOPMENT FRAMEWORK CORE STRATEGY**

**HABITAT REGULATIONS APPROPRIATE ASSESSMENT STAGE 1:
FURTHER SCREENING REPORT**

A Report to Solihull Metropolitan Borough Council

Contract Number: C111062

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Checked by:

David Smith
Ecology and Landscapes Director

Approved by:

Dr Philip Fermor
Managing Director