



HABITATS REGULATIONS ASSESSMENT FOR THE BIRMINGHAM CORE STRATEGY

Screening Report

September 2010





Habitats Regulations Assessment for the Birmingham Core Strategy

Screening Report

DRAFT

Client:	Birmingham City Council
Report No.:	UE-0081_BCC_HRA_Screening_5_020910ND
Date:	2 nd September 2010
Status:	Draft for client comment
Author:	HJD
Checked:	NEJP
Approved:	NJD

Contents

Executive Summary	i
E1.1 Introduction	ii
E1.2 Findings	ii
E1.3 Consultation Arrangements	iii
1 Introduction	4
1.1 Background	4
1.2 Purpose and Structure of this Report	4
1.3 Habitats Regulations Assessment of Land Use Plans	4
1.4 Background to the Birmingham Core Strategy	6
1.5 Overview of the City of Birmingham	7
2 Methodology	10
2.1 Guidance and Best Practice	10
2.2 HRA Methodology	10
3 European Sites	15
3.1 Scope of the Study	16
3.2 Information about European sites	19
3.3 Other useful information	20
4 Effects of the Core Strategy	21
4.1 Background	21
4.2 Consideration of Effects	21
4.3 Assumptions used in the assessment of policies	22
4.4 Explanation of assessment findings by policy	22

4.5	Employment and Centres	23
4.6	Housing	24
4.7	Connectivity	24
4.8	Quality of Life	24
4.9	In-Combination Test	24
5	Commentary on Potential Effects	27
5.1	Introduction	27
5.2	Air Quality	27
5.3	Disturbance from Recreation	28
5.4	Water supply	29
5.5	Water quality	31
5.6	Recommendations for a Water Cycle Study (WCS)	31
6	Screening Conclusions and Next Steps	33
6.1	Screening Conclusions	33
6.2	Consultation Arrangements	33
	References	35
Appendix A:	European Site Information (separate document no. UE-0081_BCC_HRA_Screening Appendices_1_020910HD)	
Appendix B:	Core Strategy Policy Screening (separate document no. UE-0081_BCC_HRA_Screening Appendices_1_020910HD)	

List of Tables and Figures

Figures

Figure 3.1: *European sites within 20km of Birmingham.*

Figure 3.2: *European sites connected by impact pathways to Birmingham.*

Tables

Table 2.1: *Stages in the Habitats Regulations Assessment process drawing on guidance from the DCLG and Natural England.*

Table 2.2: *Categories for the screening assessment of policies (derived from Tyldesley, 2009).*

Table 3.1: *European sites in the vicinity of Birmingham.*

Table 3.2: *Details of contact with other organisations.*

Table 4.1: *Summary of likely significant and uncertain effects associated with the Birmingham Core Strategy.*

Table 5.1: *Air quality data from APIS for land near to and including Cannock Chase SAC.*

Abbreviations

AA	Appropriate Assessment
BCC	Birmingham City Council
CAMS	Catchment Abstraction Management Strategy
DCLG	Department of Communities and Local Government
DPD	Development Plan Document
EA	Environment Agency
HRA	Habitats Regulations Assessment
IROPI	Imperative Reasons of Overriding Public Interest
LDD	Local Development Document
LNR	Local Nature Reserve
ODPM	Office of the Deputy Prime Minister (now disbanded)
PPS	Planning Policy Statement
RBMP	River Basin Management Plan
RoC	Review of Consents
RSS	Regional Spatial Strategy
SA/SEA	Sustainability Appraisal / Strategic Environmental Assessment
SAC	Special Area of Conservation
SPA	Special Protection Area
SSW	South Staffordshire Water Plc
STW	Severn Trent Water Plc
UNESCO	United Nations Educational, Scientific and Cultural Organisation
WRMP	Water Resources Management Plan

Glossary

Conservation objectives	A statement of the nature conservation aspirations for a site, expressed in terms of the favourable condition required for the habitats and/or species for which the site was selected.
Ecological / site integrity	The integrity of a site is the coherence of its ecological structure and function, across its whole area, that enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was classified.
European sites	Areas of international nature conservation importance (including SPAs, SACs, and, in accordance with Government policy, Ramsars) that are protected for the benefit of the habitats and species they support; known collectively as the Natura 2000 network.
Eutrophication	The over-enrichment of an aquatic or terrestrial environment with nutrients, especially nitrates and phosphates, often anthropogenic (for example, sewage, ammonia from livestock, fertiliser run-off), which may result in excessive growth of algae or changes in plant communities, and can adversely affect species and ecosystems.
Impact pathway	Pathways are routes by which a change in activity associated with a development can lead to an effect upon a European site some distance away, for example through watercourses.
Intrinsic qualities	An intrinsic quality of any European site is its functionality at the landscape ecology level that enable the site to support the ecosystems that it does; in other words, how the site interacts with the zone of influence of its immediate surroundings, as well as the wider area.
Likely significant effects	The European Court of Justice has held that any effect likely to undermine the conservation objectives of a European site should be regarded as a significant effect in this context. It should be regarded as a likely effect, if the risk of it occurring cannot be ruled out on the basis of objective information.
Precautionary principle	If a preliminary scientific evaluation shows that there are reasonable grounds for concern that a particular activity might lead to damaging effects on the environment, but the nature or extent of these effects are uncertain, then measures such as avoiding or mitigating the effect should be determined, pending the availability of more reliable scientific data.
Review of Consents	An Environment Agency document reviewing consented environmental actions (such as water abstraction and sewage discharge) that may affect a Natura 2000 site.

This page is intentionally blank.

DRAFT

Executive Summary

E1.1 Introduction

This is a Habitats Regulations Assessment (HRA) screening report. It has been prepared by UE Associates on behalf of Birmingham City Council and provides a statement, for consultation with Natural England and others, as to whether or not the Birmingham Core Strategy requires Appropriate Assessment under the Habitats Regulations. The report has sought to identify any possible effects on European sites that might arise as a result of proposals in the Core Strategy.

European sites are areas of international nature conservation importance that are protected for the benefit of the habitats and species they support. The screening process examines the likely significant effects the Core Strategy could have on **European sites in the vicinity of Birmingham or which lie along known impact pathways**, as a result of actions proposed by the plan and their interrelationship with the sites' specific environmental sensitivities.

E1.2 Findings

Based on the information given in the following chapters, it is considered **uncertain whether the Core Strategy could lead to significant effects** on a number of European sites. Cannock Chase SAC has been identified as possibly being affected by road traffic use through the SAC and recreational pressure which may increase in association with growth of the city. A number of water based designations (or those which are dependent on water) have also been identified in association with uncertainty of information over whether or not water management issues (demand for and supply of water, as well as the treatment of waste water) either alone or in combination with other plans or projects, may lead to significant effects. This uncertainty needs to be explored further before any firm conclusions can be made about any likely significant effects arising from proposals in the Core Strategy. It is therefore suggested that further analysis is undertaken via the Appropriate Assessment process.

To help inform the Appropriate Assessment process, two recommendations are made: (1) to prepare a Water Cycle Study; and (2) to prepare a Green Infrastructure Strategy.

Further details of the screening process can be found in the main report, where:

- ▶ **Chapter One** provides a background;
- ▶ **Chapter Two** explains the methodology used;
- ▶ **Chapter Three** describes the European sites considered by the assessment;
- ▶ **Chapter Four** analyses the Core Strategy policies;
- ▶ **Chapter Five** provides a commentary on the potential effects of the plan; and
- ▶ **Chapter Six** presents the Screening Statement and next steps.

E1.3 Consultation Arrangements

Consultation on the Screening Statement will take place alongside publication of the plan. The consultation period is between XXXX and XXXX 2010. All responses to the consultation should be sent to:

Core Strategy HRA Screening Consultation

DRAFT

1 Introduction

1.1 Background

1.1.1 Birmingham City Council (BCC) is undertaking a Habitats Regulations Assessment (HRA) of the emerging Core Strategy for the city. This is a requirement of Regulation 102 of the Conservation (Natural Habitats &c) Regulations 2010 (as amended; 'the Habitats Regulations'). The assessment focuses on the likely significant effects of the plan on the nature conservation interests of European-protected areas in the vicinity of Birmingham, and seeks to establish whether or not there will be any adverse effects on the ecological integrity of these European sites as a result of proposals in the plan.

1.2 Purpose and Structure of this Report

1.2.1 This report addresses the earliest stages of HRA. It documents the initial evidence gathering process and states whether or not a full Appropriate Assessment (AA) is required for the Core Strategy. The report shows that there are 14 European sites close to Birmingham or within the city's impact pathways that need to be considered because they could potentially be affected as a result of the plan due to their specific environmental sensitivities.

1.2.2 The outputs of the report include information in relation to:

- ▶ The HRA process (**Section 1.3**);
- ▶ The Birmingham Core Strategy (**Section 1.4**);
- ▶ The HRA methodology (**Chapter Two**);
- ▶ Evidence gathering in relation to the European sites (**Chapter Three** and **Appendix A**);
- ▶ Interpretation of effects according to Core Strategy policy area (**Chapter Four** and **Appendix B**);
- ▶ A commentary on potential effects of the plan (**Chapter Five**); and
- ▶ A Screening Statement as to the need, or otherwise, for Appropriate Assessment, and next steps (**Chapter Six**).

1.3 Habitats Regulations Assessment of Land Use Plans

1.3.1 The application of HRA to land use plans is a requirement of the Conservation of Habitats and Species Regulations 2010 (the Habitats Regulations), the UK's transposition of European Union Directive 92/43/EEC *on the conservation of natural habitats and of wild fauna and flora* (the Habitats Directive). HRA must be applied to all Local Development Documents (LDD) in England and Wales. It aims to assess the potential effects of a land use plan against the

conservation objectives of any sites designated for their nature conservation importance as part of a system known collectively as the Natura 2000 network of European sites.

- 1.3.2 European sites provide ecological infrastructure for the protection of rare, endangered or vulnerable natural habitats and species of exceptional importance within the European Union. These sites consist of Special Areas of Conservation (SACs, designated under the Habitats Directive) and Special Protection Areas (SPAs, designated under European Union Directive 2009/147/EC on the conservation of wild birds (the Birds Directive)). Meanwhile, Government policy (PPS9 (ODPM, 2005a) and Circular 06/05 (ODPM, 2005b)) recommends that Ramsar sites (UNESCO, 1971) are treated as if they are fully designated European sites for the purpose of considering development proposals that may affect them.
- 1.3.3 Under Regulation 102 of the Habitats Regulations, the assessment must determine whether or not a plan will adversely affect the integrity of the European site(s) concerned. The process is characterised by the precautionary principle. The European Commission (2000) describes the principle as follows:

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

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

Action is then undertaken to obtain further information enabling a more objective assessment of the risk. The measures taken to manage the risk should be maintained so long as the scientific information remains inconclusive and the risk unacceptable.

- 1.3.4 The hierarchy of intervention is important: where significant effects are likely or uncertain, plan makers must firstly seek to avoid the effect through for example, a change of policy. If this is not possible, mitigation measures should be explored to remove or reduce the significant effect. If neither avoidance, nor subsequently, mitigation is possible, alternatives to the plan should be considered. Such alternatives should explore ways of achieving the plan's objectives that avoid significant effects entirely. If there are no alternatives suitable for removing an adverse effect, plan-makers must demonstrate, under the conditions of Regulation 103 of the Habitats Regulations, that there are Imperative Reasons of Overriding Public Interest (IROPI) to continue with the proposal. This is widely perceived as an undesirable position and should be avoided if at all possible.

1.4 Background to the Birmingham Core Strategy

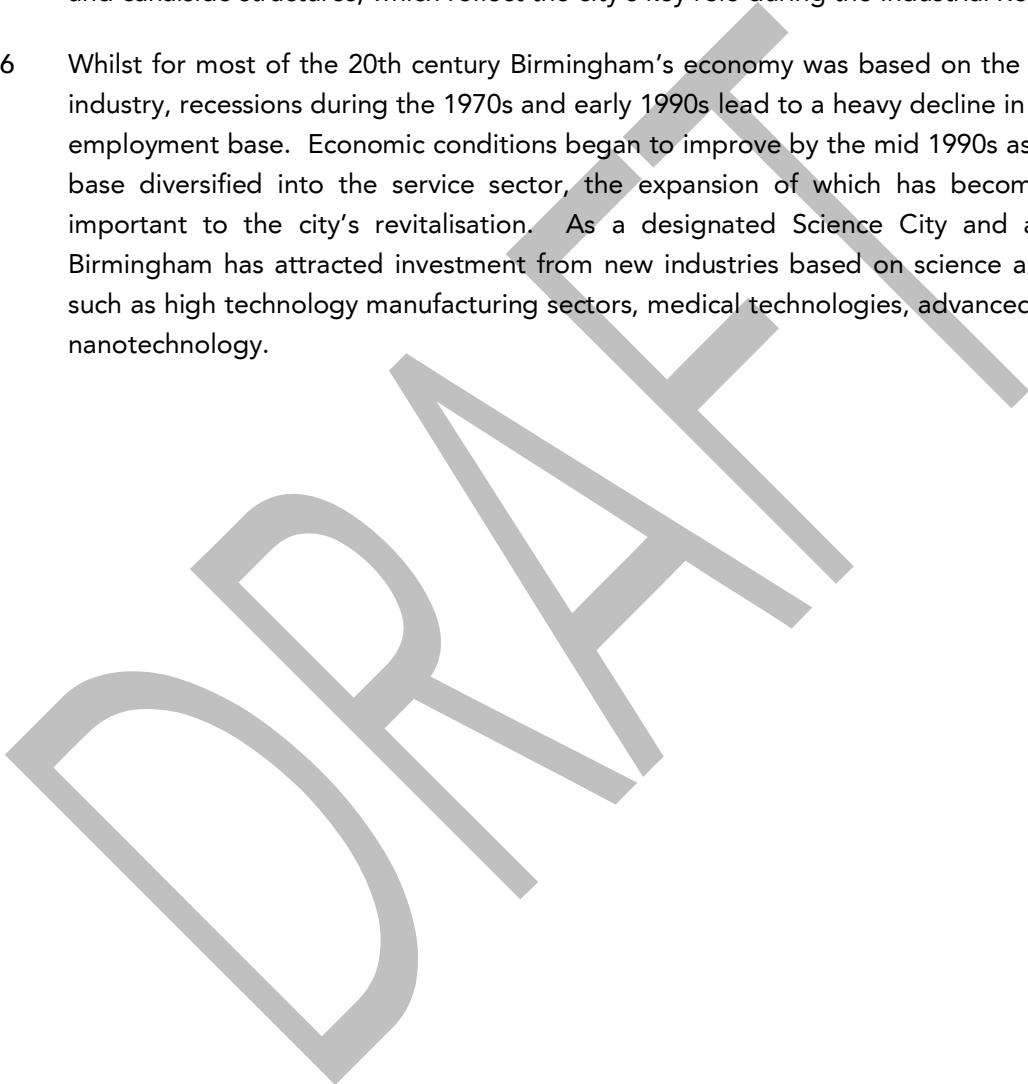
- 1.4.1 Birmingham City Council is currently preparing the Core Strategy for the city. The purpose of the Core Strategy is to set out a clear spatial framework for the growth of Birmingham up to 2026. As such the Strategy will set out how much new housing should be provided in the city, and it will identify the general locations for the construction of new housing. It will also identify the key locations for employment provision, and for other key activities, such as shopping, waste management, leisure and sport, education and health in order to support the city's growing population. The Core Strategy will also consider the need for new transport and other infrastructure to enable this new development to take place in a sustainable way. In promoting this agenda for growth, the Core Strategy will need to reflect Birmingham's ambitious targets for reducing CO₂ emissions and to contribute to the Council's wider agenda of improving the quality of life for all Birmingham's residents.
- 1.4.2 A spatial vision of Birmingham provides the essential starting point to planning for the future of the city. The vision is the basis for the objectives and preferred options of the Core Strategy and embraces the overarching themes and outcomes set out in the city's Sustainable Community Strategy, "Birmingham 2026" (Birmingham Local Strategic Partnership, 2008).
- 1.4.3 The Sustainable Community Strategy establishes five guiding principles which set the context for the Core Strategy. These principles are:
1. Succeed economically;
 2. Stay safe in a clean green city;
 3. Be healthy;
 4. Enjoy a high quality of life; and
 5. Make a contribution.
- 1.4.4 Building on these principles and drawing on the outcomes of the consultation processes undertaken so far, four more specific themes have been identified which underpin the spatial vision which lies at the heart of the Core Strategy. These themes are:
- ▶ Sustainable growth;
 - ▶ A vibrant global city;
 - ▶ High quality of life and a sense of place; and
 - ▶ An innovative and connected city.
- 1.4.5 To deliver the vision nine key objectives have been identified for the city, which will shape the emerging strategy. The objectives of the Core Strategy are as follows:
1. To promote Birmingham's national and international role as a global city;
 2. To create a more sustainable city that minimises its carbon footprint and waste while allowing the city to grow;
 3. To develop Birmingham as a city of vibrant urban villages, that is safe, diverse and inclusive with a locally distinctive character;

4. To secure a significant increase in the city's population towards 1.1 million and meet regional targets for new housing;
5. To create a prosperous, successful economy, with benefits felt by all;
6. To provide high quality transportation links throughout the city and with other places, and encourage the increased use of public transport;
7. To make Birmingham a learning city with quality institutions;
8. To encourage better health and well being through the provision of new and existing sports and leisure assets linked to good quality public open space throughout the city; and
9. To protect and enhance the city's heritage and historic environments and to conserve Birmingham's natural environments allowing biodiversity and wildlife to flourish.

1.5 Overview of the City of Birmingham

- 1.5.1 The following paragraphs have been derived from the Consultation Core Strategy; for more extensive details about the city and its characteristics, please see the Consultation Core Strategy.
- 1.5.2 Birmingham lies at the heart of the West Midlands in central England, and thus has excellent links to the national motorway network. The main international gateway to Birmingham is provided by Birmingham International Airport and Birmingham International Station, which adjoin the NEC complex. There is a significant amount of in-commuting to Birmingham from adjoining areas; in particular South East Staffordshire (Lichfield and Tamworth), Solihull, South Warwickshire (Stratford-on-Avon) and North Worcestershire (Redditch, Bromsgrove and Worcester).
- 1.5.3 With a population of just over 1 million and covering an area of 26,777 hectares, Birmingham is the UK's second largest city with an ever-increasing standing as a vibrant and diverse global city. Birmingham is densely populated at 37.4 people per hectare. The population is relatively young with about 45% of residents under 30 compared with the national average of 37%. Birmingham's residents are from a diverse range of national, ethnic and religious backgrounds. According to the 2001 Census, non-white groups form 29.6% of the city's population, which is one of the largest proportions outside London. Just over 10% are Pakistani with the next largest groups being Indian and Black Caribbean.
- 1.5.4 More than one fifth of the city consists of open space, and 16% of Birmingham's land area is designated as green belt. There is a great variety of open space provision including parks, nature reserves, allotments, golf courses and playing fields. Many of these areas are linked by rivers, watercourses and canals forming an inter-connected network which extends into areas beyond Birmingham's boundary and which is of great importance in promoting biodiversity. Birmingham contains a number of areas that are protected for their nature conservation value including two Sites of Special Scientific Interest (SSSIs): Sutton Park and Edgbaston Pool; Sutton Park is also designated as a National Nature Reserve (NNR). There are presently seven

Local Nature Reserves (LNRs); Moseley Bog LNR and Plantsbrook LNR are amongst the largest in the city.

- 1.5.5 The city also has a wealth of historic and archaeological resources, including 27 designated conservation areas, mainly located within attractive suburbs and within historic parts of the City Centre. These account for 4% of the land area of Birmingham including the Jewellery Quarter and Bourneville conservation areas, which are nationally renowned. There are many listed and locally listed buildings in the city, as well as 13 Scheduled Ancient Monuments of national importance. In addition, Birmingham hosts an extensive network of historic canals and canalside structures, which reflect the city's key role during the Industrial Revolution.
- 1.5.6 Whilst for most of the 20th century Birmingham's economy was based on the manufacturing industry, recessions during the 1970s and early 1990s lead to a heavy decline in the traditional employment base. Economic conditions began to improve by the mid 1990s as the economic base diversified into the service sector, the expansion of which has become increasingly important to the city's revitalisation. As a designated Science City and a Digital City, Birmingham has attracted investment from new industries based on science and technology such as high technology manufacturing sectors, medical technologies, advanced materials and nanotechnology.
- 

This page is intentionally blank.

DRAFT

2 Methodology

2.1 Guidance and Best Practice

2.1.1 Guidance on HRA has been published in draft form by the Government (DCLG, 2006); it draws in part on European Union guidance (European Commission, 2001) regarding the methodology for undertaking Appropriate Assessment of plans.

2.1.2 The guidance recognises that there is no statutory method for undertaking HRA and that the adopted method must be appropriate to its purpose under the Habitats Directive and Regulations; this concept is one of the reasons why HRA is also often referred to as Appropriate Assessment. The guidance identifies three stages to the HRA process:

- ▶ AA1: Likely Significant Effects (Screening);
- ▶ AA2: Appropriate Assessment and Ascertaining the Effect on Integrity; and
- ▶ AA3: Mitigation Measures and Alternative Solutions.

2.1.3 Where stage AA3 cannot produce alternative solutions to remove or reduce adverse effects to insignificant levels, there may be a need to explore Imperative Reasons of Overriding Public Interest. This is discouraged by DCLG. The three stages collectively make up Habitats Regulations Assessment, while Stage AA2 is the point at which Appropriate Assessment of the plan is carried out if the evidence points to a need for such an assessment.

2.1.4 Natural England has produced more prescriptive draft guidance on the assessment of Local Development Plan Documents under the provisions of the Habitats Regulations (David Tyldesley and Associates, February, 2009). This introduces the concept of a stepped approach to the assessment process and fits within the framework of the three stages identified by DCLG. Whilst the guidance is draft it nevertheless provides a very helpful approach to HRA and has subsequently been followed in this report.

2.1.5 **Table 2.1** illustrates how the two approaches (DCLG and Natural England) can be operated as one integrated methodology to achieve the same outcome from each approach. It is recognised that HRA may be undertaken at the same time as other assessment processes associated with the preparation of DPDs (i.e., Sustainability Appraisal and Strategic Environmental Assessment (SA/SEA)), but it should be noted that it is a distinct procedure with its own legislative requirements. The SA/SEA process for the Core Strategy is being undertaken and documented separately from the HRA.

2.2 HRA Methodology

2.2.1 The HRA follows the methodology prepared by David Tyldesley and Associates for Natural England (2009), as described in **Table 2.1**.

Table 2.1: Stages in the Habitats Regulations Assessment process drawing on guidance from the DCLG and Natural England

DCLG Stage	Natural England (Tyldesley) Steps
AA1: Likely significant effects	1. Identify all international sites in and around the area.
	2. Acquire, examine and understand conservation objectives of each interest feature of each European site potentially affected.
	3. Consider the policies and proposals in the plan and the changes that they may cause that may be relevant to the European sites. This is likely to involve estimating likely magnitude, duration, location and extent of effects of the changes as far as they may reasonably be predicted at this stage.
	4. Acknowledging the plan is not necessary for site management, would any elements of the plan be likely to have a significant effect on any interest feature, alone or in-combination with other projects and plans, directly or indirectly?
	5. Seek official screening statement from Natural England.
AA2: Appropriate Assessment and ascertaining the effect on integrity	6. Agree scope and method of the Appropriate Assessment and consultation period with Natural England.
	7. Undertake an Appropriate Assessment of the implications for each affected site in light of its conservation objectives, using the best information, science and technical know-how available.
AA3: Mitigation measures and alternative solutions	8. Consider whether any possible adverse effect on integrity of any site could be avoided by changes to the plan, such as an alternative policy or proposal whilst still achieving its aims and objectives.
	9. Draft a report on the Appropriate Assessment and consult Natural England and if necessary the public.
	10. Taking account of Natural England and public representations, can it be ascertained that the plan will not adversely affect the integrity of any international site?

2.2.2 The screening process, drawing on information about the qualifying features of the site and its conservation objectives, considers whether or not the Core Strategy policies are likely to lead to significant effects on the integrity of any European site.

2.2.3 To document potential effects, a classification system derived from the Tyldesley guidance (2009) can be used. The four categories (as set out in the as yet unpublished document, David Tyldesley and Associates, February 2009, *Revised Draft Guidance: The Habitats Regulations Assessment of Local Development Documents*, for Natural England) are as follows:

- ▶ **Category A:** elements of the plan / options that would have no negative effect on a European site at all;
- ▶ **Category B:** elements of the plan / options that could have an effect, but the likelihood is there would be no significant negative effect on a European site

either alone or in combination with other elements of the same plan, or other plans or projects;

- ▶ **Category C:** elements of the plan / options that could or would be likely to have a significant effect alone and will require the plan to be subject to an appropriate assessment before the plan may be adopted;
- ▶ **Category D:** elements of the plan / options that would be likely to have a significant effect in combination with other elements of the same plan, or other plans or projects and will require the plan to be subject to an appropriate assessment before the plan may be adopted.

2.2.4 Categories A, C and D are subdivided so that the specific reason why the assessor has allocated the policy or proposal to that category is more transparent, and more directly related to the ways in which the plan may affect the European site. These subdivisions are detailed in **Table 2.2** below.

Table 2.2: Categories for the screening assessment of policies (derived from Tyldesley, 2009)

Category A: No negative effect	
A1	Options / policies that will not themselves lead to development e.g. because they relate to design or other qualitative criteria for development, or they are not a land use planning policy.
A2	Options / policies intended to protect the natural environment, including biodiversity.
A3	Options / policies intended to conserve or enhance the natural, built or historic environment, where enhancement measures will not be likely to have any negative effect on a European Site.
A4	Options / policies that positively steer development away from European sites and associated sensitive areas.
A5	Options / policies that would have no effect because no development could occur through the policy itself, the development being implemented through later policies in the same plan, which are more specific and therefore more appropriate to assess for their effects on European Sites and associated sensitive areas.
Category C: Likely significant effect alone	
C1	The option, policy or proposal could directly affect a European site because it provides for, or steers, a quantity or type of development onto a European site, or adjacent to it.
C2	The option, policy or proposal could indirectly affect a European site e.g. because it provides for, or steers, a quantity or type of development that may be very close to it, or ecologically, hydrologically or physically connected to it or it may increase disturbance as a result of increased recreational pressures.
C3	Proposals for a magnitude of development that, no matter where it was located, the development would be likely to have a significant effect on a European site.
C4	An option, or policy that makes provision for a quantity / type of development (and may indicate one or more broad locations e.g. a particular part of the plan area), but the effects are uncertain because the detailed location of the development is to be selected following

	consideration of options in a later, more specific plan. The consideration of options in the later plan will assess potential effects on European Sites, but because the development could possibly affect a European site a significant effect cannot be ruled out on the basis of objective information.
C5	Options, policies or proposals for developments or infrastructure projects that could block options or alternatives for the provision of other development or projects in the future, which will be required in the public interest, that may lead to adverse effects on European sites, which would otherwise be avoided.
C6	Options, policies or proposals which depend on how the policies etc are implemented in due course, for example, through the development management process. There is a theoretical possibility that if implemented in one or more particular ways, the proposal could possibly have a significant effect on a European site.
C7	Any other options, policies or proposals that would be vulnerable to failure under the Habitats Regulations at project assessment stage; to include them in the plan would be regarded by the EC as 'faulty planning'.
C8	Any other proposal that may have an adverse effect on a European site, which might try to pass the tests of the Habitats Regulations at project assessment stage by arguing that the plan provides the imperative reasons of overriding public interest to justify its consent despite a negative assessment.
Category D: Likely significant effects in combination	
D1	The option, policy or proposal alone would not be likely to have significant effects but if its effects are combined with the effects of other policies or proposals provided for or coordinated by the LDD (internally) the cumulative effects would be likely to be significant.
D2	Options, policies or proposals that alone would not be likely to have significant effects but if their effects are combined with the effects of other plans or projects, and possibly the effects of other developments provided for in the LDD as well, the combined effects would be likely to be significant.
D3	Options or proposals that are, or could be, part of a programme or sequence of development delivered over a period, where the implementation of the early stages would not have a significant effect on European sites, but which would dictate the nature, scale, duration, location, timing of the whole project, the later stages of which could have an adverse effect on such sites.

2.2.5 These categories, and sub-categories, provide the means of recording the results of the assessment in such a way that important issues are identified whilst policies that have no effect are sieved out.

2.2.6 The screening process concerns steps 1 to 5 in **Table 2.1**. The following chapters address the five steps accordingly:

- ▶ **Chapter Three** – Identifies all European sites (Step 1) and examines the conservation objectives of each of these sites (Step 2);
- ▶ **Chapters Four and Five** – Determine the likely significant effects of the Core Strategy on European sites, both alone (Step 3) and in-combination with other plans (Step 4); and

- ▶ **Chapter Six** – Provides details about consultation and seeking a Screening Statement from Natural England (Step 5).

DRAFT

This page is intentionally blank.

DRAFT

3 European Sites

3.1 Scope of the Study

- 3.1.1 Each European site has its own intrinsic qualities, besides the habitats or species for which it has been designated, that enable the site to support the ecosystems that it does. An important aspect of this is that the ecological integrity of each site can be vulnerable to change from natural and human induced activities in the surrounding environment. For example, sites can be affected by land use plans in a number of different ways, including the direct land-take of new development, the type of use the land will be put to (for example, a noise emitting use), the pollution a development generates and the resources it uses (during both construction and operation).
- 3.1.2 An intrinsic quality of any European site is its functionality at the landscape ecology level; in other words, how the site interacts with the zone of influence of its immediate surroundings, as well as the wider area. This is particularly the case where there is potential for developments resulting from the plan to generate water- or air-borne pollutants. As a starting point to explore and identify where European sites occur which might be affected by the Core Strategy, a 20km search zone has been applied. This approach follows the 2009 David Tyldesley and Associates Draft Guidance.
- 3.1.3 Applying this area of search, five European sites located within 20km of Birmingham have been identified (see **Figure 3.1**). However, potential impact pathways need to be considered which extend beyond this initial search zone. In the case of water, pathways from the BCC area have been considered in terms of effects arising on European sites at both the Humber and Severn estuaries. Likewise, the Elan Valley in Wales, where a range of European sites can be found, has also been included as part of this Screening Report's investigations.
- 3.1.4 Air pollution pathways have also been considered in terms of deposition further afield beyond the initial 20km search zone. **Figure 3.2** demonstrates the wider picture in terms of European sites outside the of the initial 20km search zone.
- 3.1.5 **Table 3.1** lists 14 European sites within the vicinity of Birmingham that may potentially be affected by activities arising from the plan.

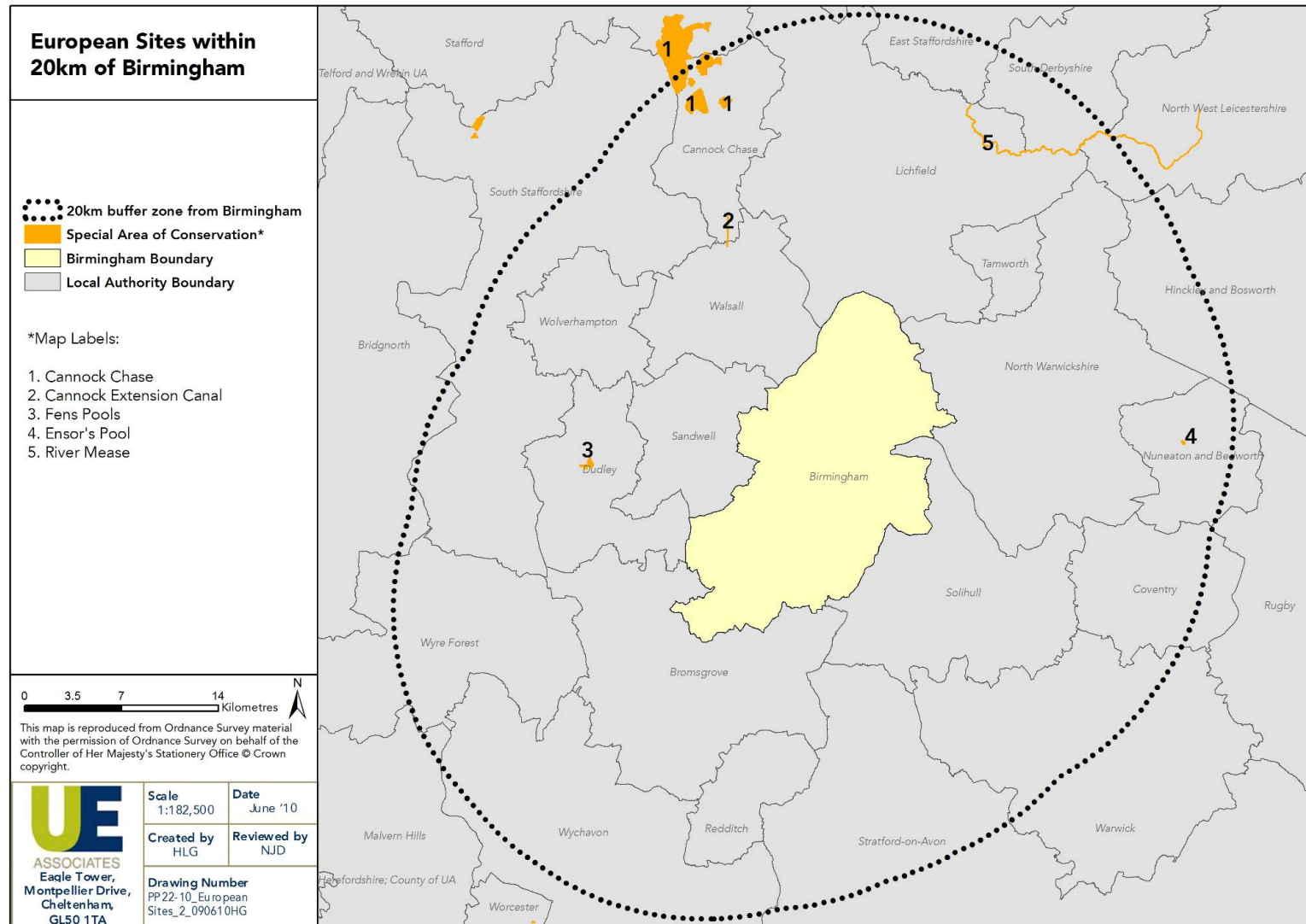


Figure 3.1: European sites within 20km of Birmingham

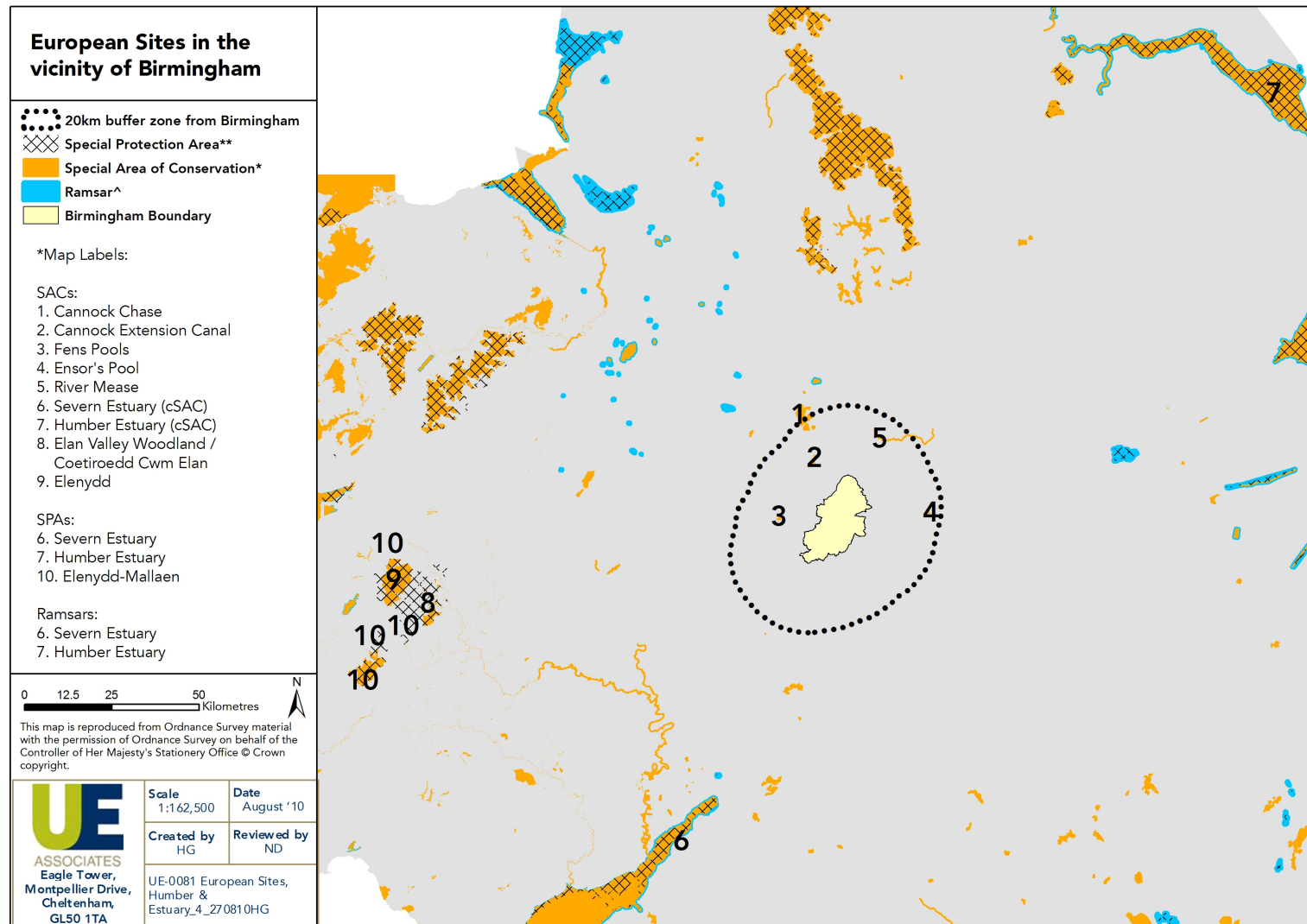


Figure 3.2: European sites connected by impact pathways to Birmingham

Table 3.1: European sites in the vicinity of Birmingham

Name	Location	Type
Cannock Chase	Within 20km of Birmingham	SAC
Cannock Extension Canal	Within 20km of Birmingham	SAC
Elan Valley Woodland / Coetiroedd Cwm Elan	Within potential zone of influence	SAC
Elenydd	Within potential zone of influence	SAC
Ensor's Pool	Within 20km of Birmingham	SAC
Fens Pools	Within 20km of Birmingham	SAC
Humber Estuary	Within potential zone of influence	SAC
River Mease	Within 20km of Birmingham	SAC
Severn Estuary	Within potential zone of influence	SAC
Elenydd-Mallaen	Within potential zone of influence	SPA
Humber Estuary	Within potential zone of influence	SPA
Severn Estuary	Within potential zone of influence	SPA
Humber Estuary	Within potential zone of influence	Ramsar
Severn Estuary	Within potential zone of influence	Ramsar

3.2 Information about European sites

3.2.1 **Appendix A** provides comprehensive information from the Joint Nature Conservancy Council (JNCC) about each site. Information has been categorised on the following basis:

- ▶ **Site Description:** Providing ecological facts about the site;
- ▶ **Qualifying Features:** The qualifying features of each site (that is, the reasons for which the sites were designated);
- ▶ **Conservation Objectives:** Natural England is in the process of setting out conservation objectives for all SACs and SPAs, and progress towards achieving these objectives can be taken as an indicator of favourable condition at each European site. Ramsar sites do not have agreed conservation objectives, but in most instances overlap with SPA site boundaries. However, it should be noted that Ramsar qualifying features include a range of habitats and non-bird species common to SAC designations, as well as bird species and assemblages and their supporting habitats, which are common to SPAs; and
- ▶ **Key Environmental Conditions Supporting Site Integrity:** Every European site has distinctive characteristics that make it potentially vulnerable to a variety of impact-inducing activities.

3.2.2 It should be noted that there are no European sites within the city limits.

3.3 Other useful information

3.3.1 Besides information on European sites, various organisations have been contacted to discuss the HRA and any matters that might be relevant to the HRA of the Core Strategy. **Table 3.2** provides details of who was contacted, what was discussed and whether or not further action is required.

Table 3.2: Details of contact with other organisations

Organisation and name of contact	Nature of enquiry	Response
Natural England, Jane Wormald	16 th July 2010: To make early contact to Natural England and confirm that the HRA is taking place.	30 th July 2010: Natural England welcomed early engagement and offered support and information.
Environment Agency, Gill Walters	17 th August 2010: To obtain Review of Consents information for the relevant European sites.	RoC information has not yet been received; 1 st September 2010: Environment Agency provided initial comments on European sites in the West Midlands area and the consultation AA of the Severn Tidal Tributaries Catchment Flood Management Plan.
Severn Trent Water Plc, Matthew Foster / Marcus O'Kane	9 th August 2010: To obtain a copy of the HRA screening report for the water resource management Plan (WRMP).	Matt Foster confirmed HRA material had been prepared and offered to make it available. The draft screening report has not yet been received (1 st September) but is due imminently.
It would be helpful to contact CCW (perhaps Alison Brown)		

4 Effects of the Core Strategy

4.1 Background

4.1.1 This chapter considers the policies proposed for inclusion in the Preferred Option version of the Core Strategy and, acknowledging that the plan is not necessary to the management of any European site, states whether or not the proposals are likely to have significant effects on site integrity, either alone or in-combination with other plans or projects.

4.1.2 Site integrity can be described as follows (ODPM, 2005b):

"The integrity of a site is the coherence of its ecological structure and function, across its whole area, that enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was classified."

4.2 Consideration of Effects

4.2.1 The Core Strategy proposes a total of 54 strategic policies for delivering the plan, split into seven key subject areas:

1. Growth;
2. Climate Change;
3. Employment and Centres;
4. Housing;
5. Connectivity;
6. Waste; and
7. Quality of Life.

4.2.2 All proposed Core Strategy policies have been screened for likely significant effects on the European sites in question. **Appendix B** illustrates the results of the HRA screening process for all Core Strategy policies against each European site. **Table 4.1** presents only those policies which have been identified as potentially leading to adverse effects on European sites. An explanation of the assessment findings for these policies is discussed below. There are a number of salient issues which come out the assessment findings; recreation, water supply, water quality and air quality. These are discussed on a topic basis in **Chapter 5**.

Table 4.1: Summary of likely significant and uncertain effects associated with the Birmingham Core Strategy

Strategic Policy		Cannock Chase SAC	Elan Valley sites	Humber Estuary sites	Severn Estuary sites
Employment and Centres					
SP12	Core Employment Areas	B	C2	C2	C2
SP13	Regional Investment Sites	B	C2	C2	C2
SP14	Central Technology Belt	B	C2	C2	C2
SP18	The Growth, Scale and Function of Centres	B	C3	C3	C3
Housing					
SP23	The Housing Trajectory	C2	C3	C3	C3
SP24	The Distribution of New Housing Provision	C2	C2	C2	C2
SP29	Provision for Gypsies, Travellers and Travelling Showpeople	B	C2	C2	C2
Connectivity					
SP33	The Strategic Transport Network	C1	A4	A4	A4
Quality of Life					
SP46	Sports Facilities	A4	C2	C2	C2
SP47	Recreational Uses within the Green Belt	B	C2	C2	C2
SP52	Education	B	C2	C2	C2

4.3 Assumptions used in the assessment of policies

4.3.1 This assessment has been prepared using the best available data and information at the time of writing. It should be noted that the authors have been working without the availability of a Water Cycle Study. Also, further to several requests having been made for HRA information prepared by (i) the Environment Agency as part of the Review of Consents (RoC) process, and (ii) Severn Trent Water as part of the WRMP preparation, the authors are still without these important reports.

4.4 Explanation of assessment findings by policy

4.4.1 The HRA process has identified a number of Core Strategy policies that based on the assumptions in **section 4.3.1** which present a situation of uncertainty and therefore, bringing the precautionary principle into play, might lead to adverse effects. The following sections discuss each of the identified policies in the order that they appear in the Core Strategy and according to the Core Strategy's seven subject areas (see **section 4.2.1**).

4.4.2 The assessment findings at this stage are by the nature of the consultation Core Strategy, strategic and lacking in detail. This is a characteristic of assessment at this level of plan making.

4.4.3 It should be noted that, at this stage of the HRA, the potential for mitigation measures to reduce the likelihood of impacts has not yet been assessed, and the identification or uncertainty of likely significant effects does not necessarily mean that draft proposals would be certain to have an adverse impact on the integrity of a European site. The Appropriate Assessment stage should therefore be undertaken for those proposals where significant effects are considered to be 'likely' or 'uncertain', to understand the scale and magnitude of potential impacts in view of each site's qualifying features, conservation objectives and vulnerabilities, as well as the mitigation measures that may be available to reduce or remove the effect.

4.5 Employment and Centres

4.5.1 Policies for employment and centres are typically associated with growing the sites in question by building new or, more likely, enhancing existing employment locations. They may also support particular employment activities. For example, the move away from manufacturing to service industries requires a different geographic and practical approach; for example, more office space might be needed.

4.5.2 Three policies (SP12, SP13 and SP14) have been screened in because the outcome of the policy proposals is not defined. These are:

- ▶ SP12: Core Employment Areas;
- ▶ SP13: Regional Investment Sites; and
- ▶ SP14: Central Technology Belt.

4.5.3 In other words, the HRA process has identified them due to uncertainty about the end result of the policy. Depending on the nature of the particular activities at each site, there may be development or operational issues which may affect European sites. The sites in question are those that might be affected by water supply and water quality i.e. the Elan Valley sites, Humber Estuary sites and Severn Estuary sites.

4.5.4 Policy SP18 (The Growth, Scale and Function of Centres), has been screened in due to the size and scale of the proposals in question. The policy has been included on a precautionary basis due to potential effects that may be associated with infrastructure demands for water and treatment of water if growth was to accelerate out of the current position of economic slowdown. Both water companies believe that commercial demand for water has dropped in recent years and the economic downturn (from 2008 to present) has led to even smaller demand levels. The policy does however apply until 2026 and it is worth considering in more detail whether or not any precautionary text should be added to clarify the uncertainty; it is noted that this policy identifies a requirement for impact assessment for proposals above 2,500 sq metres.

4.6 Housing

- 4.6.1 Policy SP23 (The Housing Trajectory) is a policy that clarifies a particular quantum of development but does not prescribe the geographic location. It has been screened in using the C3 class from **Table 2.2**. That is, inclusion in the screening process due to the sheer size of the development proposals causing uncertainty around effects. In this case the European sites that might be affected by water supply and water quality, i.e. the Elan Valley sites, Humber Estuary sites and Severn Estuary sites, have been screened in.
- 4.6.2 Cannock Chase SAC has also been screened in as part of the assessment of SP23, on a precautionary basis, since the increase in population associated with new dwellings might increase recreational demand at Cannock Chase. Policy SP24 (The Distribution of New Housing Provision) has been interpreted in the same way and screened into the assessment.
- 4.6.3 Policy SP24 and Policy SP29 (Provision for Gypsies, Travellers and Travelling Showpeople) have both been screened in for the potential effects that might be associated with impact pathways to the European sites associated with demand for water and water management. The Elan Valley sites, Humber Estuary sites and Severn Estuary sites have been screened in because demand for water and the need for waste water treatment, which in turn may affect water quality, need to be explored in more detail. See **Chapter 5**.

4.7 Connectivity

- 4.7.1 Policy SP33 (The Strategic Transport Network) extends its influence beyond the city limits and throughout the region. The subject area of the policy is such that a strategic approach is required to engage properly with the issue of transportation. Road use, in particular, the stretches of road which run alongside Cannock Chase SAC i.e. the A34 which runs from the city north straight through the European site, means that in-combination effects could be associated with an increase in traffic and therefore air quality issues.

4.8 Quality of Life

- 4.8.1 All of the policies cited in **Table 4.2** which together form part of the "Quality of Life" chapter in the Core Strategy, have been included as they may all require water for drinking and other operational purposes and also for the treatment of waste water. Golf courses in particular can require high levels of water to maintain the green fabric of the courses. The high level nature of the Core Strategy means that, by definition, the policies are unlikely to define outcomes; they are instead seeking to guide and shape development. In this case the development is associated with quality of life issues. It remains unclear, however, as to the likely water impacts that may arise since these have not been qualified or quantified; the nature of the sporting and recreational activities is not clear. On the basis of the precautionary principle, they are included as part of the screening exercise.

4.9 In-Combination Test

4.9.1 Other plans and projects being prepared or implemented in the area have the potential to cause negative effects on the integrity of European sites. These effects may be exacerbated when experienced in-combination with the effects of the plan in question, possibly leading an insignificant effect to become significant. It is therefore important to consider which other plans and projects could generate similar effects to the Core Strategy at the same European sites, and which may act in-combination.

4.9.2 The plans listed below are considered likely to act in-combination with the Core Strategy, and will be taken forward to the Appropriate Assessment stage for further analysis. However in some cases, for example the Core Strategies of a number of authority areas, new plans are not yet in operation. These new plans still need to be considered for in combination effects, but significant uncertainty will remain over the nature of effects they might generate until they are adopted.

- ▶ Black Country Joint Core Strategy (not yet adopted);
- ▶ Cannock Chase Core Strategy (not yet adopted);
- ▶ Derbyshire Local Transport Plan 2006/2011;
- ▶ East Midlands Regional Plan (2009);
- ▶ East Staffordshire Core Strategy (not yet adopted);
- ▶ Lichfield Core Strategy (2010);
- ▶ North West Leicestershire Core Strategy (not yet adopted);
- ▶ Nuneaton and Bedworth Core Strategy (not yet adopted);
- ▶ South Derbyshire Core Strategy (not yet adopted);
- ▶ South Staffordshire Core Strategy (not yet adopted);
- ▶ Stafford Core Strategy (2006);
- ▶ Staffordshire Local Transport Plan 2006/2011;
- ▶ Tamworth Core Strategy (not yet adopted);
- ▶ Warwickshire Local Transport Plan 2006/2011;
- ▶ West Midlands Local Transport Plan 2006/2011; and
- ▶ Worcestershire Local Transport Plan 2006/2011.

This page is intentionally blank.

DRAFT

5 Commentary on Potential Effects

5.1 Introduction

5.1.1 The purpose of the HRA screening stage is to identify any proposals likely to lead to a significant effect at a European site. A further test of the latter stages of HRA is to establish whether the plan will lead to adverse effects on European site integrity. The following sections offer a commentary on why some of the proposals are screened into an Appropriate Assessment under the Habitats Regulations, and explain the uncertainties around these value judgements.

5.2 Air Quality

The European dry heaths and Northern Atlantic wet heaths (characterised by *Erica tetralix* Cross leaved heather) of Cannock Chase SAC are presently in good ecological condition, according to the latest SSSI condition surveys (see **Appendix A**). Only a small part of the SAC (less than 10%) is recorded as unfavourable, not-recovering.

Drawing on national APIS dataⁱ i.e. the Air Pollution Information System, and looking at pollution values according to the generic 5km x 5km square which includes part of Cannock Chase SACⁱⁱ, it is clear that acid deposition is an issue. It is currently exceeded by a significant order of magnitude. The APIS information is reproduced in **Table 5.1**. Besides the acid deposition, other pollutants (specifically ammonia, nitrogen deposition and ozone) are possibly causing local exceedances for particular features of the heathland habitat and should therefore be examined more closely as part of the Appropriate Assessment. It is important to note that the APIS data is limited in its accuracy; whilst it provides a useful starting point, more detailed examination of local circumstances need to be explored.

The effects of acid deposition include eutrophication which in turn enhances the opportunities for grasses to dominate amongst the heather, leading to deterioration in habitat quality as the heather cannot compete (Natural England, 2008).

Having been able to explore local data sources supplied by Staffordshire County Council, Footprint Ecology (2009) made similar conclusions with regard to the effect of traffic-sourced air pollution on Cannock Chase.

For these reasons, it is suggested that air quality is explored in more detail as part of an Appropriate Assessment process. Another important consideration at the Appropriate Assessment stage will be the findings of Local Transport Plan Habitats Regulations Assessment data; this will be relevant from both Staffordshire County Council and the West Midlands.

ⁱ <http://www.apis.ac.uk>

ⁱⁱ National Grid Reference: South West corner of the 5 x 5 km grid square 398000-318000.

Similarly, the work of the inaugural joint working group for Cannock Chase may be able to provide useful up to date information about the likely significant effects associated with increasing traffic and Cannock Chase SAC.

Table 5.1: Air quality data from APIS for land near to and including Cannock Chase SAC

Pollutant	Critical Load (Range) / Level	Deposition / Exposure / Concentration	Exceedance (Ranges)
Acid Deposition	0.1 keq/ha/yr	1.57 keq/ha/yr	1.47 keq/ha/yr
Ammonia	1-3 µg/m ³	1.7 µg/m ³	[0.7] to [-1.3] µg/m ³
Nitrogen Deposition	10-25 kg N/ha/yr (northern wet heath) 10-20 kg N/ha/yr (dry heath)	20.0 kg N/ha/yr	[10.0] to [-5.0] kg N/ha/yr (northern wet heath) [10.0] to [0.0] kg N/ha/yr (dry heath)
Nitrogen Oxides	30 µg NO ₂ m ⁻³	16.6 µg NO ₂ m ⁻³	-13.4 µg NO ₂ m ⁻³
Ozone	3000 ppb hours	2947 ppb hours	-53 ppb hours
Sulphur Dioxide	20 µg/m ³	1.3 µg/m ³	-18.7 µg/m ³

Key to table: Red represents exceedance at all levels; amber suggests exceedance is almost reached; green implies that pollution levels are significantly below exceedance levels.

5.3 Disturbance from Recreation

5.3.1 The housing requirement for Birmingham, as set out in 'Strategic Policy 23: The Housing Trajectory' is 57,500 additional dwellings over the period 2006 to 2026. Although Birmingham is approximately 20km from Cannock Chase SAC, research published by Staffordshire County Council and some of its local authority partners, suggests that the northern part of the city is associated with recreational visits to the SAC. Work undertaken on behalf of the Staffordshire councils by Footprint Ecology (2009; 2010) has drawn on the approach taken and evolved as part of the south east regional examination of issues affecting the Thames Basin Heath SPA. This suggested that recreational effects were likely to be levied by 75% of the nearest visiting population; the distance within which the visiting population lived was determined using visitor survey information.

5.3.2 In this way, by using the Thames Basin Heath model, Birmingham has been included as part of a 19km zone of influence around Cannock Chase SAC. The European site, which has been designated for the quality of its heathland habitat, is under strain from visitors who are contributing to recreational disturbance (Footprint, 2010). There are two types of heathland

habitat at the site: European dry heath and North Atlantic wet heath. The European heath exhibits characteristics of lowland heathland whilst the North Atlantic heath is characterised by upland heath.

- 5.3.3 A review of the Footprint Ecology research shows that the authors have limited confidence in their conclusions due to a number of factors and that further work should be prepared to explore more fully the complete range of factors at play in the SAC, and analyse the pattern of visitor use more closely by equipping the process with up to date information. That is, to prepare a new visitor survey to find out precisely where people come from and what they do.
- 5.3.4 The full range of variables potentially affecting the intrinsic qualities of the site ought also to be looked at, so that these may be fully understood. Factors besides physical recreational impacts include available water levels across the heathland areas, forestry management and policy, grazing, risk of fires, eutrophication and climate change.
- 5.3.5 To this end, an inaugural working group has been set up consisting of local authorities, government agencies and land managers to look at the issues affecting Cannock Chase SAC so that the proposed growth in the next 20 years around and near to the site will not have an adverse effect on the integrity of Cannock Chase SAC. It is understood that a visitor survey will be undertaken to understand more clearly by using up to date, tailored visitor research information, where people come from and how they use the Chase. From this research it should be possible to say with more confidence whether or not likely significant effects are likely to arise at Cannock Chase SAC as a result of recreational users visiting from Birmingham.
- 5.3.6 One further piece of research to help with this HRA analysis would be the preparation of a green infrastructure strategy by BCC. Firstly, this may show that people prefer to use sites that are closer to Birmingham such as Sutton Park NNR or Kingsbury Water Park (Country Park). Secondly, a green infrastructure strategy can include plans within it to provide new alternative local destinations in and around Birmingham for people to visit and use rather than impacting on the SAC at Cannock Chase, if indeed this becomes necessary.

5.4 Water supply

- 5.4.1 Development of new housing and employment land in Birmingham will increase the number of people living and working in the city by approximately 100,000 over the plan period, hence increasing the demand for water. Water is currently supplied by two water companies: Severn Trent Water (STW) and South Staffordshire Water (SSW). Both companies, as required by the Water Act 2003, have prepared water resource management plans (WRMP) to cover the next 25 years; the plans will be reviewed every year and revised every five years (Environment Agency, 2010b).
- 5.4.2 The purpose of the plans is to manage the supply and demand of water, making sure that solutions are delivered in a cost effective manner. SSW (2009) has stated that "the company has sufficient resources to meet forecast demand, plus target headroom for annual average and peak week conditions throughout the plan period. There is no requirement for demand or supply interventions".

- 5.4.3 Water supply through the STW WRMP (2010) is less straight forward than for SSW in that a range of different measures have been carefully planned in order to achieve the company's aim for water supply and demand management. The STW WRMP states that, "The overall aim of our supply / demand strategy is to achieve and maintain the level of headroom necessary to ensure we can deliver our target levels of service at least cost to customers, whilst minimizing the impact on the environment. We plan to do this in part by reducing leakage and managing the demand for water, and partly by developing new resources....In the long term, our strategy is to make better use of our existing resources by maximising their sustainable use and further integrating our network. This strategy is aligned with our supply resilience plans and our water supply investments will provide both resilience and supply / demand benefits".
- 5.4.4 In the case of both plans, all water supply consents have to be approved by the Environment Agency (EA). As part of the consent process, the EA prepare their own Habitats Regulations Assessment process to help ensure that water supply will not adversely affect the integrity of European sites. Licences sometimes need to be time limited over a shorter than usual period and have to be regularly reviewed as a result of a particular circumstance. In declaring their ability to meet demand and supply, the companies are relying on the EA to renew licences. In the face of consents being withheld, the companies are obliged to make alternative plans to find different solutions. The STW WRMP includes several such measures as part of its 25 year planning. **It would be helpful to further inform this section with the EA RoC material.**
- 5.4.5 The EA use Catchment Abstraction Management Strategies to assess the amount of water available for further abstraction permitting. The WRMP preparation process cannot precisely pre-empt the decisions of the EA, and licences have to be applied for in order to receive consents to abstract. Notably, for example, in the case of STW, the company has had abstraction licences reviewed and reduced to meet "sustainability reductions" sought by the EA to avoid over-abstraction effects on rivers like the River Worfe in Staffordshire (STW, 2010).
- 5.4.6 As the competent authority under the Habitats Regulations, STW has elected not to prepare a Habitats Regulations Assessment but have nevertheless prepared a report akin to an HRA Screening Report. **We have requested a copy of this and are still awaiting it; it has been approved for release to us by Matt Foster at STW.**
- 5.4.7 The Birmingham Water Resource Zone identified in the Severn Trent WRMP (2010) is supplied almost entirely by Wales Water via the Elan Valley Reservoir. This supplies the Birmingham zone with 345 Ml/day (STW, 2010). The Water Resource Zone also has the ability to import water should it be required, from other parts of the STW network and beyond. Depending on precisely where this is sourced from, there could be significant effects on European sites such as the Humber Estuary and the Severn Estuary. It is assumed that these issues are being included as part of the STW work looking into Habitats Directive issues.
- 5.4.8 For this reason, and to overcome uncertainty associated with whether or not there may be water supply issues affecting the designations at the Severn and Humber estuaries, the issue should be further explored as part of the Appropriate Assessment. Ideally, a Water Cycle Study should be prepared to explore the issue.

5.5 Water quality

- 5.5.1 Water quality is monitored by the Environment Agency according to national standards. It is measured in terms of chemical and biological standards, and nutrient statusⁱⁱⁱ. The recently published River Basin Management Plans (Birmingham falls largely within the Humber RBMP (EA, 2009a)) include information about the ecological status of rivers. This is led by the demands of the Water Framework Directive (WFD). The requirements of the WFD are more stringent than current standards and are likely to require water companies amongst others to ensure that all water bodies, including rivers, lakes and reservoirs meet WFD standards.
- 5.5.2 Waste water from the city of Birmingham is treated at Minworth Sewage Treatment Works, which is the biggest waste water treatment facility in the Severn Trent area. Water quality is an important consideration in terms of the Humber estuary sites. Waste water is presently discharged from Minworth into the River Tame which flows into the River Trent and on to the Humber Estuary. The three sites (SAC, SPA and Ramsar) are known to be vulnerable to changes in water quality caused by domestic sewage. The ecological status of the Tame is presently classified as "poor" in the Humber RBMP (EA, 2009a).
- 5.5.3 In addition, as mentioned in **Section 5.3**, an increase in abstractions due to development of housing and employment land may decrease water levels at the bogs and standing waters of Elenydd SAC and, to a lesser extent, Elenydd-Mallaen SPA. If the waters are in a state of nutrient enrichment, then algal blooms may occur, causing a decrease in water quality reducing oxygen levels and killing invertebrates and fish.
- 5.5.4 There is no reason to assume this effect might be caused in the short term, but climate change projections need to be considered as part of long term planning (UKCP09^{iv}); the plan period for both the Core Strategy and WRMP mean that this issue should be explored further as part of the Appropriate Assessment and in keeping with the precautionary principle.

5.6 Recommendations for a Water Cycle Study (WCS)

To be confident that there are no adverse effects associated with policy proposals, either arising from water demand/supply or water quality issues, it is necessary to demonstrate that there is (a) an adequate supply of water, and (b) any waste water will be treated so that no likely significant effects arise in connection with any European sites. The established means of addressing water quality/quantity issues is to prepare a Water Cycle Study.

A water cycle study (as defined by the Environment Agency, 2009b) will identify tensions between growth proposals and environmental requirements, and identify potential solutions to addressing them. Effective planning and close cooperation between all parties involved is essential to the success of a water cycle study. One of the most important benefits of a WCS is that it allows all the key organisations to work together in the planning process and builds

ⁱⁱⁱ <http://www.environment-agency.gov.uk/research/planning/34383.aspx>

^{iv} <http://ukclimateprojections.defra.gov.uk>

confidence between parties. A water cycle study will help to plan for water more sustainably by:

- ▶ Bringing together all partners and stakeholders existing knowledge, understanding and skills;
- ▶ Bringing together all water and planning evidence under a single framework;
- ▶ Understanding the environmental and physical constraints to development;
- ▶ Working alongside green infrastructure planning to identify opportunities for more sustainable planning, and;
- ▶ Identifying water cycle planning policies and a water cycle strategy to help all partners plan for a sustainable future water environment.

DRAFT

6 Screening Conclusions and Next Steps

6.1 Screening Conclusions

6.1.1 This document sets out Birmingham City Council's statement on Habitats Regulations Assessment for the proposed Core Strategy. It shows that at the present time, there is uncertainty as to whether or not likely significant effects might arise through the adoption of the Core Strategy as it presently stands.

6.1.2 As a result an Appropriate Assessment is recommended to investigate the significance of effects associated with disturbance from recreational impacts at Cannock Chase SAC; the demand and supply of water which might affect a number of European sites at the Severn and Humber estuaries and possible other sites such as those found in the Elan Valley, Wales; and air quality issues associated with the heathland habitats of Cannock Chase SAC.

6.2 Consultation Arrangements

6.2.1 Liaison with Natural England and other key stakeholders (we suggest also the Environment Agency and possibly CCW as a minimum) has taken place throughout the development of the Core Strategy and its HRA. Formal consultation on the Screening Statement will take place alongside publication of the plan.

6.2.2 The consultation period is between XXXX and XXXX 2010. All responses to the consultation should be sent to:

Core Strategy HRA Screening Consultation

This page is intentionally blank.

DRAFT

References

Birmingham City Council (2008) Core Strategy Issues and Options Paper. *September, 2008.*

Birmingham Local Strategic Partnership (2008) Birmingham 2026: Our Vision for the Future; Sustainable Development Strategy. *September, 2008.*

David Tyldesley and Associates (for Natural England, 2009) Revised Draft Guidance: *The Habitats Regulations Assessment of Local Development Plan Documents.* *February, 2009.*

Department for Communities and Local Government (DCLG, 2006) Planning for the Protection of European Sites: Appropriate Assessment (Draft). *August, 2006.*

Environment Agency (2008) Tame, Anker and Mease Catchment Abstraction Strategy. *March, 2008.*

Environment Agency (2009a) River Basin Management Plan, Humber River Basin District. *December, 2009.*

Environment Agency (2009b) Water Cycle Studies Guidance v4. *January, 2009.*

Environment Agency (2010a) Horizontal Guidance Note H1 – Environmental risk assessment for permits; Version 2.0. *April, 2010.*

Environment Agency (2010b) Managing water abstraction. *June, 2010.*

European Commission (2000) Communication from the Commission on the Precautionary Principle. *February, 2000.*

European Commission (2001) Assessment of plans and projects significantly affecting Natura 2000 Sites: Methodological Guidance on the Provisions of Article 6(3) and 6(4) of the Habitats Directive. Impacts Assessment Unit, Oxford Brookes University for European Commission Environment DG. *November 2001.*

Footprint Ecology (for Cannock Chase District Council, Lichfield District Council, South Staffordshire District Council, Stafford Borough Council and Staffordshire County Council, 2009) Evidence Base relating to Cannock Chase SAC and the Appropriate Assessment of Local Authority Core Strategies. *November, 2009.*

Footprint Ecology (for Cannock Chase District Council, Lichfield District Council, South Staffordshire District Council, Stafford Borough Council and Staffordshire County Council, 2010) Cannock Chase Visitor Impact Mitigation Strategy. *January, 2010.*

Natural England (2008) The State of the Environment Report.

Office of the Deputy Prime Minister (ODPM, 2005a) Planning Policy Statement 9: Biodiversity and Geological Conservation. *August, 2005.*

ODPM (2005b) Government Circular 06/05: Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System. *August, 2005.*

Severn Trent Water (2010) Water Resources Management Plan (final version). *June, 2010.*

South Staffs Water (2009) Final Water Resources Management Plan. *August, 2009.*

United Nations Educational, Scientific and Cultural Organisation (UNESCO, 1971) Convention on Wetlands of International Importance especially as Waterfowl Habitat. (Ramsar (Iran), UN Treaty Series No. 14583). *February, 1971.*

DRAFT

DRAFT

UE Associates Ltd

Eagle Tower Montpellier Drive Cheltenham GL50 1TA

T: 01242 524 111 E: enquiries@ue-a.co.uk

W: <http://www.ue-a.co.uk>

© UE Associates Ltd 2010

BRIGHTON | CHELTENHAM | EXETER | LONDON

UE Associates Ltd

Eagle Tower, Montpellier Drive, Cheltenham, GL50 1TA

T: 01242 524 111 E: enquiries@ue-a.co.uk

W: <http://www.ue-a.co.uk>

© UE Associates Ltd 2010

BRIGHTON • CHELTENHAM • EXETER • LONDON