West Midlands Regional Spatial Strategy Phase 3

Habitats Regulations Assessment

Draft

Screening Report for Consultation

West Midlands Regional Assembly

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Compiled by

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Disclaimer:

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1 Introduction

Treweek Environmental Consultants (TEC) and URSUS were appointed by the West Midlands Regional Assembly to undertake a Habitats Regulations Assessment (HRA) for the Phase Three Revision of the West Midlands Regional Spatial Strategy (RSS).

This report sets out the results of a screening exercise undertaken between October 2008 and May 2009 to identify European Sites which could be affected by implementation of Phase 3 of the RSS. Sites for which possible impacts have been identified will form the focus of the Appropriate Assessment stage (Stage 2) of the HRA.

The findings of the Phase Two HRA have been taken into consideration during the screening process, but at the present time the Phase 3 assessment needs to be considered 'without prejudice' pending the Inspector's report on the Phase 2 WMRSS examination.

The HRA is due to be completed during the winter of 2009 so that it can inform the development of the Preferred Option and be used to make any appropriate recommendations for amendments to avoid significant adverse effects on the integrity of any European Site. The Panel's report from the West Midlands Phase Two Revision EiP process should be available in September and will be available to inform the Appropriate Assessment of the Phase Three Revision.

1.1 Purpose and contents of the report

This report is intended as the basis for consultation with stakeholders and will be amended to reflect the results of a screening workshop to be held in June 2009.

The remaining sections in this chapter explain the requirement to undertake HRA of development plans such as the West Midlands RSS; summarise the Phase 3 Options, explain the methodology used for the Screening Stage and summarise the results of the screening assessment.

1.2 The requirement to undertake Habitats Regulations Assessment of Development Plans

The European Habitats Directive (European Communities, 1992) requires assessment of the possible effects of certain plans on the integrity of 'European Sites' before the plan is adopted. The overall process of determining whether a plan complies with the requirements of the Habitats Directive is referred to as 'Habitats Regulations Assessment'.

In this context, 'European sites' - comprise:

- Special Areas of Conservation (SACs) and Candidate Special Areas of Conservation (cSACs), for habitats;
- Special Protection Areas (SPAs), for birds and potential Special Protection Areas (pSPAs) ; and also
- sites designated under the Ramsar Convention as wetlands of international importance.

The purpose of HRA is to determine whether a proposed plan might have adverse effects on the integrity of any European Site, taking into account the reasons why a site was designated and its 'conservation objectives'.

Article 6(3) of the Directive requires an assessment of the effects of any plan or project (which is not directly connected with, or necessary to, the management of a site). This assessment must consider effects of the plan itself and its possible effects in combination with other plans or projects. In the light of the conclusions of the assessment, the competent national authorities can agree to the plan or project only when they have ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.

Article 6(4) of the Directive discusses alternative solutions, the test of "imperative reasons of overriding public interest" (IROPI) and compensatory measures:

"*6(4) If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted*."

European guidance recommends that HRA should be undertaken in four stages:

1 Screening: Determining whether the plan - 'in combination' with other plans and projects - is likely to have an adverse effect on any European site

2 Appropriate Assessment: Determining whether, in view of the site's conservation objectives, the plan - 'in combination' with other plans and projects - would have an adverse effect (or risk of this) on the integrity of European site (s). If it doesn't, the plan can proceed.

3 Assessment of alternative solutions: Where the plan is assessed as having an adverse effect (or risk of this) on the integrity of any European site, there should be an examination of alternatives.

4 Assessment where no alternative solutions remain and where adverse impacts remain: The 'IROPI test' and compensatory measures (European Commission, 2001).

The end-product of the process as a whole is a statement which concludes whether or not the plan will affect the integrity of any European site. The assessment process can be stopped after any of these stages if it is found that the plan (revised if necessary) will not adversely affect the integrity of any European site. This report summarises the results of the first, screening stage of the assessment.

1.3 The West Midlands RSS

The RSS for the West Midlands was published in June 2004, and became a statutory development plan in September 2004. The current revised RSS, containing amended policies relating to the Black Country, was published in January 2008.

The purpose of the RSS is to guide the preparation of local authority development plans, local waste plans and local transport plans, so that together they can provide a coherent framework for regional development up to 2021.

When the RSS was published in June 2004, the Secretary of State supported the vision and objectives of the strategy, but suggested that several issues needed to be developed further by the Regional Planning Body (the West Midlands Regional Assembly). Given the range of matters to be considered, it was agreed that these issues should be looked at in three phases, as follows:

- Phase 1, Black Country Study, a plan for the long-term change and development of this sub-region including the City of Wolverhampton and the Boroughs of Walsall, Sandwell and Dudley, begun in February 2005, submitted to the

Secretary of State in May 2006, and completed in January2008 when the revised RSS was published.

- Phase 2, including housing needs, urban capacity, employment land, airports, road user charging and waste management, begun in November2005, and completed with the submission of Preferred Option and Policies to the Secretary of State on 21 December 2007.
- Phase 3 (this phase) started in November 2007, with the launch of the Draft Project Plan, and is likely to conclude in the summer of 2009 when the Preferred Option and Policies will be submitted to the Secretary of State.

1.3.1 Summary of Phase 3 options

Options for the following topics have been presented through the Phase Three Revision:

- Rural services: To identify and prioritise the services critical to the sustainability of rural communities, and to identify mechanisms for promoting their provision.
- Communities for the Future: To identify the number of pitches required for Gypsies, Travellers and Travelling Showpeople.
- Culture, Sport and Tourism: To improve the provision of, and access to, quality cultural and sports assets and provide opportunities to increase the rate of participation / attendance in cultural activities.
- Environment: To further develop environmental policies in the RSS, including those related to management of flood risk and air quality, development of renewable energy and development in the Green Belt.
- Minerals: To develop regional policies on safeguarding mineral resources and the future supplies of construction aggregates and brick clay.

Many options in Phase 3 are considered to be 'mitigation type' options, which are intended to protect the environment and communities from potential impacts associated with the level of development provided for in the Phase Two Revision.

It is important that the Phase Three Revision incorporates any recommendations identified in the Phase Two HRA to deal with issues that haven't already been incorporated in the Phase Two Preferred Option. These include:

- The suggestion that policies should support the consolidation and buffering of European sites to address pressures from increasing numbers of visitors and to ensure the viability of supporting habitat. The Phase 2 HRA suggested this should be considered further in relation to Policies QE4 and QE6.
- The Inclusion of a commitment to a regional strategy to tackle the spread of invasive species both within and outwith the region, to be developed with the Environment Agency and Natural England.

Mitigation to address the issue of diffuse air pollution has been proposed through the inclusion of Policy SR4 in the Phase Two Preferred Option, but this will need to be re-examined following publication of the Panel Report on the Phase Two EiP. The environment section in the Phase Three Revision may provide another opportunity to include measures to address diffuse air pollution.

Paragraph 2.29 incorporates the Phase Two HRA recommendations that LAs should work with the EA and LPAs to develop water cycle studies to inform their LDDs; also to promote use of sustainable drainage systems to reduce any adverse effects associated with surface water run-off from new development. However policies to

protect European sites from alterations to water supply or changes to water quality are likely to be strengthened following the EiP.

1.4 Methodology

The purpose of this screening process was to identify any European site that might be adversely affected by the RSS Phase Three Revision Proposed Changes. Further assessment (Stage 2 'Appropriate Assessment') will be undertaken for those sites for which possible adverse effects have been identified in the screening stage, in order to confirm the nature of likely significant effects (LSEs) and to identify suitable measures to avoid adverse effects on site integrity.

The Screening stage entailed the collection and analysis of information relating to:

- Any European sites within the West Midlands which could be affected in any way by the RSS and also any site outside the immediate 'footprint' of the plan which could be subject to indirect effects (including sites in other regions in England and in Wales).
- Possible effects on these sites associated with the RSS Phase Three Options.
- Information on other plans and projects which might contribute to in-combination effects.

This assessment also took into account any residual issues associated with the Phase Two Revision and whether changes could be made to Phase 3 options to address them.

Relevant information was obtained from previous HRA work in the region, the JNCC website (http://www.jncc.gov.uk/) and other sources in the literature as well as through consultation with the statutory nature conservation bodies and the Environment Agency. A Site-by-site review was carried out to identify any potential conflict between the RSS Phase 3 and the European sites' qualifying interest features and/or associated conservation objectives. Preliminary suggestions for avoidance or mitigation of effects on the integrity of any European site are included in the report. A screening workshop was held to discuss the findings of the screening stage and to give consultees an opportunity to identify additional sites and/or issues that should be considered. Workshop participants are identified in Appendix B.

1.4.1 Informing the development of the options

The HRA was carried out as an iterative process to allow the WMRA to take account of possible implications for European Sites during options development. Much evidence concerning the sensitivities and vulnerabilities of each site was available from earlier phases of HRA of the RSS. Because HRA work for Phase 3 started at an early stage, it was possible to work alongside the SA consultants to provide evidence and suggestions about how the options might be best developed to avoid adverse effects on European sites.

This HRA report is an official documentation of the screening process, based on the options put forward for consultation. It is important to emphasise that the consultation options are very broad and are not very spatially explicit. Although site/location-specific assessment is not necessarily considered appropriate at a regional level, it is sometimes necessary in order to reach firm conclusions about effects on the integrity of individual European Sites. In our assessment we have drawn on location-specific information as far as possible, particularly with respect to options relating to development in the green belt and minerals apportionment. However lack of spatial information has meant that it has not been possible to consider potential impacts in detail at this stage and has necessarily resulted in a

precautionary approach to the screening process, as explained in the following chapter.

2 European Sites and Options which might give rise to Likely Significant Effects

This chapter summarises the results of a preliminary screening exercise carried out to identify European sites which could be affected by Phase 3 options.

2.1 European Sites which could be affected

European Sites included in the screening assessment are listed in Table 1. This includes sites in the West Midlands, in neighbouring regions of England and in Wales.

Table 1: European sites considered in theWest Midlands RSS Phase 3 HRA screening

SACs, cSACs, SCIs	SPAs	Ramsar Sites
Berwyn and South Clwyd	Elenydd Mallaen	Humber Estuary
Bettisfield, Wem and Cadney Mosses	Humber Estuary	Midlands Meres and Mosses Phase 1
Bredon Hill	Peak District Moors (South Pennine Moors Phase 1)	Midlands Meres and Mosses Phase 2
Brecon Beacons	Severn Estuary	Severn Estuary
Brown Moss	South Pennine Moors Phase 2	
Cannock Chase	Walmore Common	
Cannock Extension Canal		
Dixton Woods		
Downton Gorge		
Elan Valley Woodlands		
Elenydd Mallaen		
Fenn's Wixhall, Bettisfield, Wem and Cadney Mosses		
Fens Pool		
Humber Estuary		
Lyppard Grange Ponds		
Mottey Meadows		
Pasturefields Salt Marsh		
Peak District Dales		
River Clun		
River Dee and Bala Lake		
River Mease		
River Usk		
River Wye		
Severn Estuary		

South Pennine Moors		
The Stiperstones and the Holley		
West Midlands Mosses		
Wye Valley and Forest of Dean bat sites		
Wye Valley Woodlands		

2.1.1 Vulnerabilities of European Sites

Drawing on the results of the Habitats Regulations Assessment carried out for Phase II of the RSS, Table 2 summarises the likely sensitivities of the sites identified in Table 1 to different types of impact.

Table 2 Likely sensitivities of European Sites to Different Types of Impact

Nature of Impact	Sites sensitive to this type of impact (from Phase Two HRA)
Increases in diffuse air pollution	Berwyn & South Clwyd SAC, Brecon Beacons SAC, Cannock Chase SAC, Downton Gorge SAC, Elan Valley Woodlands SAC, Elenydd Mallaen SAC/SPA, Fenns, Wixhall, Bettisfield, Wem and Cadney Mosses SAC, Peak District Dales SAC, South Pennine Moors SAC, The Stiperstones and the Holley SAC, West Midlands Mosses SAC, Wye valley woodlands SAC, Peak District Moors SPA, South Pennine Moors Phase II SPA.
Increases in local air pollution	Cannock Chase SAC, Peak District Dales SAC, South Pennine Moors SAC, Peak District Moors SPA.
Nutrient loading (eutrophication) associated with sewage discharges	Severn Estuary Sites, River Wye SAC, River Mease SAC, Pasturefields Saltmarsh SAC, River Dee and Bala Lake SAC; River Usk SAC.
Increase in contaminants from urban surface water runoff flowing directly into water courses	Severn Estuary Sites; River Mease SAC; Cannock Extension Canal SAC; River Wye SAC; West Midlands Mosses SAC, Midlands Meres and Mosses Phases I and II Ramsar.
Reduction of water supply to site	Humber Estuary pSAC; Humber Flats, Marshes and Coast (Phase II) Ramsar; River Dee and Bala Lake SAC; River Mease SAC; River Wye SAC; Severn Estuary sites (pSAC, SPA and Ramsar); River Usk SAC
Effects of damage or disturbance caused by tourism or recreation	Berwyn and South Clwyd SAC, South Pennine Moors SAC; Peak District Dales; River Wye SAC; Cannock Chase SAC; Cannock Extension Canal SAC; Midlands Meres and Mosses; The Stiperstones and the Holley SACand River Dee and Bala Lake SACs For other sites identified at the screening stage, Phase Three is not thought to be a primary driver of increases in recreational pressure and local/site-based solutions are thought appropriate.
Spread of invasive species	Cannock Chase SAC; South Pennine Moors SAC; Midlands Meres and Mosses Phases I and II Ramsar. Aquatic sites, River Wye SAC.
Land use change, fragmentation, loss of supporting habitat	Cannock Chase SAC; Wye Valley Woodlands and Forest of Dean Bat Sites SACs; River Dee and Bala Lake SAC.

2.2 Options which might give rise to likely significant effects

The extent to which Phase 3 Options might exacerbate any adverse trends in the types of impact identified in Table 2 was is considered to be relatively limited. Possible sources of adverse impact associated with the Phase 3 Options include:

- Options under Culture, Sport and Tourism which might exacerbate some of the pressures highlighted in the Phase Two HRA, including disturbance and damage to European sites from increases in visitor numbers and the pollution generated by associated transport.
- Options for increasing the amount of renewable energy generated in the region which could cause direct damage to habitat or disturbance and mortality to qualifying species, depending on the type and location of proposed initiatives and the supporting infrastructure needed.
- Options for safeguarding minerals and apportioning future supplies of aggregates, which could have a range of possible impacts including land take, disturbance, pollution and possibly hydrological change.
- Options related to the environment, including those related to flood risk management, development in the greenbelt, maintenance of air quality, all of which could have beneficial or negative effects.

2.3 Issues identified in the Phase 2 HRA which might need to be addressed

The HRA of the West Midlands RSS Phase 2 recommended avoidance and mitigation measures to ensure the maintenance of integrity of European Sites. Some of these were contingent on actions to be taken in developing Phase 3 policies. Table 4 summarises those issues identified in the Phase 2 HRA which might need to be addressed through measures in the Phase 3 Revision.

Table 3 Issues identified in the Phase 2 HRA and whether these need to be addressed through Phase 3 Options

Issue identified	Suggestions for Phase 3 as set out in Phase Two Revision HRA and / or the RSS phase 2 preferred option	Whether this should be tackled through the Phase 3 options
Background air pollution	Include further measures to deal with diffuse air pollution	Might be addressed through policy on Air Quality
Water quality	Policies SR3 and QE9 should be amended from "encouraging consideration of their use" to "using SUDS to reduce any adverse effects on the water environment and especially designated conservation sites".	Might be achieved through new water policy and/or policy on flood risk?
Recreation/amenity and tourism	Continue to address risk of damage or disturbance to European sites	Need to consider this further in developing options for culture, sport and tourism. For example, a list of environmental assets where significant investment is needed to protect nature conservation interests if visitor numbers are promoted.

Land use change and fragmentation	Consolidate and buffer European sites. This should be considered further in the Phase 3 revision, in relation to Policies QE4 and QE6 as suggested in the Phase 2 HRA.	QE4 policy text needs to reflect this
Spread of invasive species	Inclusion of a commitment to a regional strategy to be developed with the Environment Agency and Natural England to tackle the spread of invasive species throughout the region, including action to stop the spread of, and eliminate invasive species.	Could be included in Quality of the Environment policies.
Mineral workings	Confirm commitment to protected European sites. List any at particular risk	Commitment in policy needed. Also need to identify if any sites are at particular risk, depending on spatial specificity of options.

2.4 In combination effects

The implications of neighbouring regional spatial strategies and plans for the European sites included in this assessment were reviewed as well as those of other relevant plans and projects. Possible in combination effects are summarised in the following chapter which presents the results of the screening process. Further plans and programmes will be examined during the Stage 2 Appropriate Assessment as appropriate. As none of the sites potentially affected have been screened out at this stage, it was not necessary to carry out detailed assessment of in combination effects in order to finalise the screening assessment. .

3 Results of the screening process

The following sections summarise the results of the screening process with respect to each revision topic and also identify other relevant plans and projects that could act in combination with the Phase 3 Options and will be considered in Stage 2, in addition to Regional Spatial Strategies for Wales and neighbouring regions in England.

3.1 Culture, Sport and Tourism

3.1.1 What Phase 3 sets out to deliver

The focus of policy enhancement for this revision is to be "clearer on what strategic assets there are in the Region, where any gaps in supply are located and how the WMRSS can be revised to ensure a network or hierarchy of cultural, sports and tourism assets are provided to support economic growth and renaissance and improve the quality of life in the Region". It will be necessary to consider how the options on Culture, Sport and Tourism might affect numbers and types of visits to European sites and what measures might therefore be needed to avoid adverse effects from Phase Three and Phase Two in combination.

Changed emphasis on access to cultural, sports and tourism assets could result in increased number of visits to some European Sites which are already popular as destinations for recreation, amenity or tourism. Increased population and housing development were identified as a possible source of increased visitor numbers to some European Sites in the Phase Two HRA report. Some mitigation measures

were recommended, but it was also recognised that there would be opportunities to further tackle the risk of adverse effects from disturbance or damage through the Phase Three Revision.

One of the key factors already identified as a constraint to further participation in culture, sport and tourism in the region is transport accessibility. Implications of any changes in transport provision could have implications for European sites and will be considered further in Stage 2 of the HRA.

Consultation with strategic planning authorities (Section 4/4s) in the Region resulted in a general conclusion that any new policy should be 'criteria-based', with broad locational policies only if specific locational gaps are identified for regional assets.

The Stage 2 Appropriate Assessment will consider availability of open space, main parks and other recreational resources in districts with sites which are considered to be sensitive to visitor pressure and will receive additional homes. The assessment will draw on consultation with site managers/owners to discuss trends in visitor numbers and to understand the distances people are likely to travel to visit certain sites.

3.1.2 Other recent plans and projects that may increase visits to European sites

- The Rural Development Programme for England 2007-2013: pressures may increase on sites from promotion of increased public access
- Connecting to Success - West Midlands Economic Strategy: Increased visitor numbers and longer stays may subject sites to increased visitor pressure and disturbance.
- Cultural Life in the West Midlands - A Call for Action: Aims to promote new and existing 'cultural flagships' which may result in an increase in visitors to those sites.
- Revised West Midlands Visitor Economy Strategy: Most of the impacts will revolve around the effects of increased recreational use of the N2K sites. Increased use will result in physical and noise disturbance, in increased opportunities for casual littering and pollution.
- Rural Renaissance - Advantage West Midlands' Rural Framework: Although not specifically highlighted, appropriate rural economic activity may include tourism and recreation which could lead to increased pressure on protected sites.
- West Midlands Rural Delivery Framework First Iteration: The increase in tourism, sport and recreation in the National park and AONBs may lead to increased pressure from recreation and disturbance. Physical development of market towns and in the RRZ could lead to increased recreational pressure on sites in these areas.
- West Midlands Health and Well-Being Strategy: Increasing the number of people using the countryside and green spaces could increase pressure on N2K sites across the region.
- The Wales Spatial Plan, Wales Transport Strategy and the Development Wales Transport Plan all seek to improve accessibility and will help facilitate movement to European sites.

3.1.3 Sites to be considered in the Appropriate Assessment

The Stage 2 Appropriate Assessment will consider availability of open space, main parks and other recreational resources in districts with sites which are considered to be sensitive to visitor pressure and will receive additional homes. The assessment

will draw on consultation with site managers/owners to discuss trends in visitor numbers and to understand the distances people are likely to travel to visit certain sites. The following sites have been identified as sensitive to impacts associated with options relating to culture, sport and tourism:

- Berwyn and South Clwyd Mountains SAC/SPA
- Cannock Chase SAC
- Cannock Chase Extension Canal SAC
- Peak District Dales SAC
- South Pennine Moors SAC
- Peak District Moors (South Pennine Moors Phase I) SPA
- South Pennine Moors Phase II SPA
- River Dee and Bala Lake SAC
- River Wye SAC
- The Stiperstones and the Holley SAC

3.2 Renewable Energy infrastructure

3.2.1 What Phase 3 sets out to deliver

The Revision seeks to promote the development of renewable energy and low carbon technology resources, subject to appropriate environmental and social safeguards. This could include greater production of biofuels within the region, for example. The Climate Change Act 2008 sets legally binding greenhouse gas emission reductions targets. The target is reduced CO2 emissions of at least 80% by 2050, and 26% by 2020, against a 1990 baseline.

Possible impacts associated with development of renewable energy infrastructure such as land take for siting of wind turbines and access roads, disturbance caused by noise and mortality of birds following collision with turbines need to be offset against improvements in air quality that might be achieved if the emission reduction targets were met. More information is required on where developments are likely to be located before detailed assessment of implications for European sites will be possible.

3.2.2 Other recent plans and projects

- Climate Change the UK Programme 2006: Increased take-up of renewables could have the potential for adverse effects on sites, for example from construction of new wind farms or hydro installations leading to land take, disturbance, fragmentation or changes to the hydrological regime, or from changes to land management practices through the introduction of biomass/biofuel production. The likelihood and significance of any impacts depends on location and detailed plans for implementation which are not known.
- Meeting the Energy Challenge - A White Paper on Energy: The target is for renewables to contribute 10% of electricity supplies 2010, with an aspiration for this level to double by 2020.
- Our Energy Challenge - Power from the People: Increases in growing and processing of biofuels may have negative effects on N2K sites by changing land management practices to potentially large-scale intensive farming, and increasing emissions from combustion.

- West Midlands Regional Energy Strategy: Promotes wind, larger run of river hydro, biomass, solar thermal, heat pumps, PV and biofuels, which could have consequences for agricultural land use, disturbance, emissions, changes to hydrological regime.
- West Midlands Regional Climate Change Action Plan: Promotes renewable energy as a strong economic driver which, depending on the type and location of renewable energy developments, may increase pressure from land take, disturbance and potentially also emissions if combustion-related.
- West Midlands Rural Delivery Framework First Iteration: The increase in biomass and biofuel production and use could affect N2K sites by changing land management practices to potentially large-scale intensive farming, and increasing emissions from combustion. The effects depend on where any farms or plants are situated.

There are also a number of national energy initiatives that are currently being pursued and need to be considered as proposals come forward in this Revision. This includes the development of new nuclear energy power stations and a variety schemes for generating energy in the Severn Estuary.

3.2.3 Sites to be considered in the Appropriate Assessment

All sites in the region: it is not currently possible to determine where impacts could occur.

3.3 Green belt and land use

3.3.1 What Phase 3 sets out to deliver

The Phase 3 Revision will consider the need for a new Green Belt Policy which would define specific land uses that should be encouraged within the Green Belt. The revision will not review the Green Belt boundaries.

National policy on Green Belts is set out in PPG2, which includes the purposes of including land in Green Belts, objectives for the use of Green Belt land, a presumption against inappropriate development, and guidance on development that is not inappropriate. This is supplemented by more recent guidance, such as for waste management and renewable energy, which recognise the pressures for such developments in Green Belt locations. A stronger strategic approach is seen as important to underpin delivery of more positive social, economic and environmental benefits, such as access, amenity value, recreation, health and protection for sensitive sites.

With reference to European sites, it is possible that efforts to conserve biodiversity or create green infrastructure within the Green Belt could benefit those sites located in or near it. On the other hand developments that would result in land take or increased levels of access or disturbance could have adverse effects.

3.3.2 Other recent plans and projects

None identified.

3.3.3 Sites to be included in Stage 2

- Cannock Chase SAC
- Cannock Extension Canal SAC
- Ensor's Pool SAC

- Fens Pool SAC
- Mottey Meadows SAC

3.4 Mineral works

3.4.1 What Phase 3 sets out to deliver

The WMRSS Phase Three Revision has three objectives relating to Minerals Policy:

1. To develop a policy for safeguarding brick clays, natural building and roofing stone and aggregates. The purpose of this would be to supplement Policy M1 (Mineral Working for Non-Energy Minerals) in the WMRSS.
2. To produce new sub-regional apportionments for aggregates for the period to 2026. This would replace Policy M2 (Minerals –Aggregates) in the WMRSS.
3. To examine the supply and demand for brick clays and to ensure that there is appropriate provision made in the Region. The purpose of this would be to supplement Policy M1 in the WMRSS to ensure that the brick industry has sufficient supplies to maintain brick production.

The main emphasis is on safeguarding mineral resources from other development and ensuring that transport options remain open. This in itself is unlikely to have significant implications for European Sites. Proposals to actually develop safeguarded resources are likely to come into play at other levels of planning, when detailed HRA would be possible. However, it is important to consider whether the regional apportionment might require expansion of extraction in the lifetime of the RSS which would have implications for any European sites, including those outside the region. At the current time it is not possible to carry out this assessment. Further information will be sought to support such an assessment during Stage 2 of the HRA process.

3.4.2 Other recent plans and projects

Waste Strategy for England 2007: Promotes recycling of resources and greater resource efficiency and could help to reduce pressure on those sites which are vulnerable to mineral extraction.

3.4.3 Sites to be included in Stage 2

Sites near existing minerals extraction locations include:

- Peak District Dales SAC
- Staffordshire Moorlands SAC
- River Mease SAC
- River Wye SAC
- Midlands Meres and Mosses Phases I and II Ramsar

Further work is required to confirm implications for other sites, but this requires more information on how the regional apportionment would be met, in particular likely locations for any new mineral extraction sites.

3.5 Air quality

As part of the Phase 3 Revision, the text relating to Air Quality in paragraphs 8.45 and 8.46 of the existing WMRSS could be updated to reflect:

(a) The wider benefits of good air quality for human health and biodiversity.

(b) The links to accessibility, congestion and public transport provision.

(c) The findings from the Habitats Regulations Assessment for the WMRSS Revision Phase Two, which highlighted the impacts of Phase Two Revision development proposals on the European nature conservation sites within and beyond the Region.

(d) Any variations in air quality across the Region.

The HRA of the Phase Two Revision concluded that the integrity of a number of European sites was at risk from any additional air pollution associated with proposals set out in the RSS Phase II, as they were already over their critical loads for certain atmospheric pollutants. Policy SR4 was added to the Phase Two Revision to mitigate for this. However, the re-examination of Paragraphs 8.45 and 8.46 of the existing WMRSS through Phase Three provides an opportunity to examine any new information relating to the levels of deposition at European sites and any new plans and projects that might influence air quality in the future. There is therefore an opportunity to check whether Policy SR4 is sufficient to mitigate against potential risks.

3.5.1 Levels of Deposition at sites

The original Phase Two HRA assessment (completed in October 2007) used the best information that was available at the time through the Air Pollution Information System and available through the Electricity Supply Industry Habitats Spreadsheet[1] to understand the areas at risk from the adverse effects of acidification and eutrophication. APIS has since been updated with the addition of Site Relevant Critical Loads and a Source Apportionment for the UK Natura 2000 network[2].

This updated "detailed site based assessment" tool enables an assessment against a "critical load function" (CLF) as opposed to a "critical load value" and the deposition data for nitrogen and sulphur at each specific site is provided. The user is able to select a specific European site, and identify the critical load function for acidification for this site where applicable, together with a range of critical loads for nutrient nitrogen deposition.

Because of the site-specific nature of these values, they provide a more accurate reflection of the sensitivity of individual sites to acid and nutrient nitrogen deposition than the previous Simple Site-Based Assessment data. The higher level of detail enables an assessment against a critical load function for acid deposition to be carried out, rather than being limited to a critical load value. This function was available through the Electricity Supply Industry Habitats Spreadsheet and the values presented in Table 7 of the Phase Two HRA were checked against these to confirm whether or not a site's critical load was exceeded. Nonetheless, it is prudent to check that the APIS models provides the same results for each site at least in terms of whether or not the site exceeds the lower bounds of the critical loads for acidity and nutrient nitrogen.

The table below examines the sensitive sites identified in the RSS Phase 2 HRA using the detailed site-based assessment methodology.

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[1] Impact of atmospheric emissions from JEP coal and oil-fired power stations on sites protected by the Habitats Directive. Diane Brooke, Steve Griffiths, Keith Sadler and Rob Lennard. Joint Environment Programme report ENV/054/2005, PT/06/BE130/R. Issued February 2006.

[2] Addition of Site Relevant Critical Loads and Source Apportionment for UK Natura 2000 network in 20th October 2007. http://www.apis.ac.uk/cgi_bin/updates.pl

Table 4 – information on Critical Loads (CL) for acidity and nutrient nitrogen at different European sites

European site	Interest Feature	Does site exceed the lower bounds of CL for acidity – 2003	Does site exceed minimum CL for Nutrient Nitrogen - 2003	Does site exceed the lower bounds of CL for acidity – 2010	Does site exceed minimum CL for Nutrient Nitrogen - 2010
Berwyn & South Clwyd SAC	European dry heaths (H4030)	Yes	Yes – exceeds upper bound levels	Yes	Yes – but below upper bound levels
	Semi-natural dry grasslands and scrubland facies: on calcareous substrates (*Festuco-Brometalia*) (H6210)	No	Yes	No	Yes
	Blanket bogs (H7130)	Yes – exceeds the upper bound levels	Yes – exceeds upper bound levels	Yes – exceeds upper bound levels	Yes – exceeds upper bound levels
	Transition mires and quaking bogs (H7140)	Yes – exceeds the upper bound levels	Yes – exceeds upper bound levels	Yes – exceeds upper bound levels	Yes - but below upper bound levels
	Calcareous and calcshist screes of the montane to alpine levels (*Thlaspietea rotundifolii*) (H8120)	No – Feature not sensitivity to acidification	Sensitive to Nutrient Nitrogen and total deposition currently exceeds upper bound levels	No – Feature not sensitivity to acidification	Sensitive to Nutrient Nitrogen and total deposition currently exceeds upper bound levels
	Calcareous rocky slopes with chasmophytic vegetation (H8210)	Yes	Yes – exceeds upper bound levels	Yes	Yes – exceeds upper bound levels
Brecon Beacons SAC	European dry heaths (H4030)	Yes – exceeds upper bound levels	Yes – exceeds upper bound levels	Yes	Yes
	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels (H6430)	Yes – exceeds upper bound levels	Yes – exceeds upper bound levels	Yes – exceeds upper bound levels	Yes – exceeds upper bound levels

European site	Interest Feature	Does site exceed the lower bounds of CL for acidity – 2003	Does site exceed minimum CL for Nutrient Nitrogen - 2003	Does site exceed the lower bounds of CL for acidity – 2010	Does site exceed minimum CL for Nutrient Nitrogen - 2010
	Calcareous rocky slopes with chasmophytic vegetation (H8210)	Yes – exceeds upper bound levels	Yes – exceeds upper bound levels	Yes – exceeds upper bound levels	Yes – exceeds upper bound levels
	Siliceous rocky slopes with chasmophytic vegetation (H8220)	Yes – exceeds upper bound levels	Yes – exceeds upper bound levels	Yes – exceeds upper bound levels	Yes – exceeds upper bound levels
Bredon Hill SAC	*Limoniscus violaceus* (S1079) (Violet click beetle)	No – in addition there is no expected negative impact on the species due to impacts on the species' broad habitat.	Broad habitat sensitive to Nutrient Nitrogen but there is no expected negative impact on species due to impacts on the species' broad habitat.	No – in addition there is no expected negative impact on the species due to impacts on the species' broad habitat.	Broad habitat sensitive to Nutrient Nitrogen but there is no expected negative impact on species due to impacts on the species' broad habitat.
Cannock Chase SAC	Northern Atlantic wet heaths with *Erica tetralix* (H4010)	Yes	Yes	Yes	Yes
	European dry heaths (H4030)	Yes	Yes	Yes	Yes
Dixton Wood SAC	*Limoniscus violaceus* (S1079) (Violet click beetle)	No – in addition there is no expected negative impact on the species due to impacts on the species' broad habitat.	Broad habitat sensitive to Nutrient Nitrogen but there is no expected negative impact on constituent species due to impacts on the species' broad	No – in addition there is no expected negative impact on constituent species due to impacts on the species' broad habitat.	Broad habitat sensitive to Nutrient Nitrogen but there is no expected negative impact on constituent species due to impacts on the species' broad

European site	Interest Feature	Does site exceed the lower bounds of CL for acidity – 2003	Does site exceed minimum CL for Nutrient Nitrogen - 2003	Does site exceed the lower bounds of CL for acidity – 2010	Does site exceed minimum CL for Nutrient Nitrogen - 2010
			habitat.		habitat.
Downton Gorge SAC	Tilio-Acerion forests of slopes, screes and ravines (H9180)	Yes – exceeds upper bound levels	Yes – exceeds upper bound levels	Yes – but below upper bound levels	Yes – exceeds upper bound levels
Elan Valley Woodlands SAC	Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles (H91A0)	Yes	Yes – exceeds upper bound levels	Yes	Yes – exceeds upper bound levels
	Tilio-Acerion forests of slopes, screes and ravines (H9180)	Yes	Yes – exceeds upper bound levels	Yes	Yes – exceeds upper bound levels
	European dry heaths (H4030)	Yes	Yes	Yes	Yes
Elenydd SAC	Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or of the Iso?to-Nanojuncetea (H3130)	Info not available – feature is sensitive to acidity	Yes – exceeds upper bound levels	Info not available – feature is sensitive to acidity	Yes – exceeds upper bound levels
	European dry heaths (H4030)	Yes	Yes	Yes	Yes
	Calaminarian grasslands of the *Violetalia calaminariae* (H6130)	No	Yes	No	No
	Blanket bogs (H7130)	Yes – exceeds upper bound levels	Yes – exceeds upper bound levels	Yes – exceeds upper bound levels	Yes – exceeds upper bound levels

European site	Interest Feature	Does site exceed the lower bounds of CL for acidity – 2003	Does site exceed minimum CL for Nutrient Nitrogen - 2003	Does site exceed the lower bounds of CL for acidity – 2010	Does site exceed minimum CL for Nutrient Nitrogen - 2010
	Luronium natans (S1831)	Info not available – feature is sensitive to acidity	Yes – exceeds upper bound levels	Info not available – feature is sensitive to acidity	Yes – exceeds upper bound levels
Fenns, Wixhall, Bettisfield, Wem and Cadney Mosses SAC	Active raised bogs (H7110)	Yes – exceeds upper bound levels	Yes – exceeds upper bound levels	Yes – exceeds upper bound levels	Yes – exceeds upper bound levels
	Degraded raised bogs still capable of natural regeneration (H7120)	Yes – exceeds upper bound levels	Yes – exceeds upper bound levels	Yes – exceeds upper bound levels	Yes – exceeds upper bound levels
Peak District Dales SAC	European dry heaths (H4030	Yes	Yes – exceeds upper bound levels	Yes	Yes – exceeds upper bound levels
	Calaminarian grasslands of the *Violetalia calaminariae* (H6130)	No	Yes – exceeds upper bound levels	No	Yes - but below upper bound levels
	Semi-natural dry grasslands and scrubland facies: on calcareous substrates (*Festuco-Brometalia*) (H6210)	No	Yes – exceeds upper bound levels	No	Yes - but below upper bound levels
	Alkaline fens (H7230)	No	Yes	No	Yes
	Calcareous and calcshist screes of the montane to alpine levels (*Thlaspietea rotundifolii*) (H8120)	No	Yes – exceeds upper bound levels	No	Yes – exceeds upper bound levels
	Calcareous rocky slopes with chasmophytic vegetation (H8210)	Yes	Yes – exceeds upper bound levels	Yes	Yes – exceeds upper bound levels

European site	Interest Feature	Does site exceed the lower bounds of CL for acidity – 2003	Does site exceed minimum CL for Nutrient Nitrogen - 2003	Does site exceed the lower bounds of CL for acidity – 2010	Does site exceed minimum CL for Nutrient Nitrogen - 2010
South Pennine Moors SAC	Tilio-Acerion forests of slopes, screes and ravines (H9180)	Yes	Yes – exceeds upper bound levels	Yes	Yes – exceeds upper bound levels
	Austropotamobius pallipes (S1092). White-clawed (or Atlantic stream) crayfish *Lampetra planeri* (S1096) (Brook lamprey) *Cottus gobio* (S1163)	There is insufficient knowledge to make a judgement about the impacts on this species. Decision should be made at a site specific level. Further research is required to assess sensitivity to acidification of this species. Nutrient nitrogen - Decision to be taken at a site specific level since habitat sensitivity depends on N or P limitation.			
	Northern Atlantic wet heaths with *Erica tetralix* (H4010)	Yes	Yes	Yes	Yes
	European dry heaths (H4030)	Yes	Yes – exceeds upper bound levels	Yes	Yes – exceeds upper bound levels
	Blanket bogs (H7130)	Yes – exceeds upper bound levels	Yes – exceeds upper bound levels	Yes – exceeds upper bound levels	Yes – exceeds upper bound levels
	Transition mires and quaking bogs (H7140)	Yes – exceeds upper bound levels	Yes – exceeds upper bound levels	Yes – exceeds upper bound levels	Yes – exceeds upper bound levels
	Old sessile oak woods with Ilex and Blechnum in the British Isles (H91A0)	Yes	Yes – exceeds upper bound levels	Yes	Yes – exceeds upper bound levels
The Stiperstones	European dry heaths (H4030)	Yes	Yes	Yes	Yes

European site	Interest Feature	Does site exceed the lower bounds of CL for acidity – 2003	Does site exceed minimum CL for Nutrient Nitrogen - 2003	Does site exceed the lower bounds of CL for acidity – 2010	Does site exceed minimum CL for Nutrient Nitrogen - 2010
and the Holley SAC	Old sessile oak woods with Ilex and Blechnum in the British Isles (H91A0)	Yes – exceeds upper bound levels	Yes – exceeds upper bound levels	Yes - but below upper bound levels	Yes – exceeds upper bound levels
West Midlands Mosses SAC	Natural dystrophic lakes and ponds (H3160) Acid peat-stained lakes and ponds	No	Yes – exceeds upper bound levels	No	Yes – exceeds upper bound levels
	Transition mires and quaking bogs (H7140)	Yes – exceeds upper bound levels	Yes	Yes – exceeds upper bound levels	Yes
Wye valley woodlands SAC	*Asperulo-Fagetum* beech forests (H9130)	Yes	Yes – exceeds upper bound levels	Yes	Yes – exceeds upper bound levels
	Tilio-Acerion forests of slopes, screes and ravines (H9180)	Yes	Yes – exceeds upper bound levels	Yes	Yes – exceeds upper bound levels
	Taxus baccata woods of the British Isles (H91J0)	Yes	Yes – exceeds upper bound levels	Yes	Yes – exceeds upper bound levels
	Rhinolophus hipposideros (S1303)	There is insufficient knowledge to make a judgment of the impacts on this species. Decision should be made at a site specific level.			
Elenydd - Mallaen SPA	*Falco columbarius* & *Milvus milvus*	No expected negative impact on these species due to impacts on the species' broad habitat.			

European site	Interest Feature	Does site exceed the lower bounds of CL for acidity – 2003	Does site exceed minimum CL for Nutrient Nitrogen - 2003	Does site exceed the lower bounds of CL for acidity – 2010	Does site exceed minimum CL for Nutrient Nitrogen - 2010
Peak District Moors SPA & South Pennine Moors Phase II SPA		A number of species are considered sensitive to Nutrient Nitrogen. Potential negative impact on species due to impacts on the species' broad habitat (Transition of breeding habitat (moorland, unmanaged heather moor, bogs and hill pasture) to grass). However, potential positive impact due to increased food supply caused by eutrophication.			

Key:

Total deposition falls below the lower curve of CLF – unlikely to be a problem
Total deposition falls between estimates of CLF – may be a problem – more detailed site specific assessment needed
Total deposition falls above the upper estimates of CLF – very likely to be a problem

3.5.2 Recent plans and projects that may have an influence on air quality in the region

- The Aviation White Paper: Increased air pollution from planes, development and associated traffic
- The Future of Transport: sites could be affected by changes in transport patterns and air quality, possibly beneficial if congestion is eased and a modal shift is achieved.
- Meeting the Energy Challenge - A White Paper on Energy: Reducing energy use will reduce acidifying emissions from power stations and vehicles, which may help to reduce the pressure on sites which are sensitive to poor air quality.
- Waste Strategy for England 2007: Increasing the amount of waste to be recycled and the recovery of resources will require new plant to be constructed, and waste to be transported to and from these plants. Depending on where the plants are sited, this could have negative effects on sites from increased emissions
- Our Energy Challenge - Power from the People: Increases in growing and processing of bio-fuels may have negative effects by increasing emissions from combustion.
- Connecting to Success - West Midlands Economic Strategy: Increasing economic activity is likely to increase transport levels. Support for infrastructure improvements and increased capacity will increase movements and is likely increase emissions. Growth of Birmingham, the Regeneration Zones and the High Technology Corridors could potentially increase diffuse air pollution, as would increased tourism and visitor numbers.
- West Midlands Regional Energy Strategy: Large scale production of biomass and biofuels may increase air emissions from energy plants. The strategy aims to achieve a reduction in car use which could have benefits by reducing pressure on sites from traffic emissions, although it also envisages improving access to BIA and NEC which could increase road transport from a very large catchment area.
- Revised West Midlands Visitor Economy Strategy: Promoting increased visitor numbers and increased travel will affect emissions. The Shire counties are identified as particular assets for development of the visitor economy.
- Rural Renaissance- Advantage West Midlands' Rural Framework: Increased economic activity in rural areas, along with improved infrastructure, could increase pressures on sites from economic activity, including from traffic.
- West Midlands Regional Climate Change Action Plan: Depending on the type and location of renewable energy developments, this may increase pressure from emissions if combustion-related.
- West Midlands Rural Delivery Framework First Iteration: The increase in biomass and biofuel production and use could affect N2K sites by increasing emissions from combustion.

3.5.3 Sites to be included in Stage 2

- Berwyn & South Clwyd SAC
- Brecon Beacons SAC
- Cannock Chase SAC
- Downton Gorge SAC

- Elan Valley Woodlands SAC
- Elenydd Mallaen SAC/SPA
- Fenn's & Whixall SAC
- Peak District Dales SAC
- South Pennine Moors SAC
- The Stiperstones and the Hollies SAC
- West Midlands Mosses SAC
- Wye Valley Woodlands SAC
- Peak District moors SAC
- South Pennine Moors Phase 2 SPA

4 Conclusions and next steps

Table 3 summarises possible impacts associated with the consultation options and identifies the sites potentially affected. A more detailed interpretation is included as Appendix A. These sites will be included in the Stage 2 Appropriate Assessment to establish whether any significant adverse effects on their integrity are likely. The proposed approach to the Stage 2 assessment is summarised briefly in Section 3.8.

Table 5 Phase 3 Revision Topics and European sites affected

Phase 3 Revision Topics	How this could drive adverse changes, based on sensitivities identified in Table 2	European Sites which could be affected
Rural Renaissance – Critical Rural Services	Diffuse and/or local air pollution largely due to changes in transport patterns, which are difficult to predict.	Many, likely to include at least: Berwyn & South Clwyd SAC, Elenydd Mallaen SAC/SPA, Brecon Beacons SAC and Elan Valley Woodlands SAC Bredon Hill SAC, Cannock Chase SAC, Dixton Wood SAC, Downton Gorge SAC, Fenns, Wixhall, Bettisfield, Wem and Cadney Mosses SAC, Peak District Dales SAC, South Pennine Moors SAC, The Stiperstones and the Holley SAC, West Midlands Mosses SAC, Wye valley Woodlands SAC, Peak District Moors SPA, South Pennine Moors Phase II SPA
Communities for the Future – Sites for Gypsies, Travellers and Travelling Showpeople	Localised impacts, largely related to disturbance and possibly a variety of other impacts including localised littering and pollution.	Number of sites potentially affected varies under the two consultation options. Possible additional pitches in Cannock District could have implications for Cannock Chase SAC. Significant effects unlikely, but sensitive locations near European Sites should be avoided. It may be sufficient to flag this as a constraint for consideration at more detailed levels of planning. An indicative distance/ limit could be assigned which might indicate the need for more detailed assessment (10km?).
Culture, Sport and Tourism - To identify and address gaps in the provision of	Disturbance, transport-related pollution, localised physical damage.	Likely implications for sites already identified in Phase 2 as subject to adverse impacts from further recreational use, including South Pennine Moors SAC; Peak District Dales SAC;

international, national, regional and sub-regionally significant cultural assets.		River Wye SAC; Cannock Chase SAC; Cannock Extension Canal SAC; Midlands Meres and Mosses; The Stiperstones and the Holley SAC; Peak District Moors (South Pennine Moors Phase I) SPA. River Dee and Bala Lake SAC and Berwyn and South Clwyd Mountains SAC/SPA
Quality of the Environment – development of policies which include flood risk, air quality, renewable energy and Green Belt	Scale of development in the Region could have implications for many European Sites in the region, but there is also scope to use options under this topic to make European Sites more resilient to effects of changes in land use. Some other policies could have adverse effects (below).	All sites
Development of renewable energy	Could have impacts on many European sites from land-take, disturbance and mortality related to development of energy infrastructure and ancillary and induced development.	Not clear which sites as no spatially explicit proposals at this stage.
Policies on biodiversity (e.g. QE7)	Will have beneficial effects by promoting development of resilient natural systems across the Region, promoting a landscape scale approach and the linking of fragmented habitats	All sites, but particular benefits to sites supporting species which range outside the site, such as the Wye Valley and Forest of Dean Bat Sites.
Green Belt	Opportunity under Option 2 to help buffer European sites by providing supporting habitat and other environmental services important for the integrity of European Sites.	Some sites are located in or near the Green Belt and could be affected by any changes in land use within it. These include: Cannock Chase SAC, Cannock Extension Canal SAC, Ensor's Pool SAC, Fens Pool SAC, Mottey Meadows SAC.
Management of flood risk (possible new policy)	Altered hydrological or flooding regime, pollution caused by contaminants from urban surface water runoff flowing directly into water courses.	Needs further consideration due to implications of changes in surface water flooding for European Sites, in particular Pasturefields Saltmarsh SAC, Cannock Extension Canal SAC, West Midlands Mosses SAC, Midlands Meres and Mosses Phases I and II Ramsar. riverine SACs (River Mease, River Wye, Rivers Usk and Dee) and the Severn Estuary sites.
Minerals: development	Land take, disturbance,	Sites affected depend on need for new workings

of policies on safeguarding mineral resources and the future supplies of construction aggregates and brick clay	change in water levels and water pollution arising from future workings. Possible air pollution related to transport and local dust deposition.	as opposed to expansion of existing. Sites near existing minerals extraction locations include Peak District Dales SAC, Staffordshire Moorlands SAC, River Mease SAC, River Wye SAC, Midlands Meres and Mosses Phases I and II Ramsar, Severn Estuary SAC,SPA, Ramsar.

4.1 Summary of possible in combination effects of other regional plans

This section summarises the results of Habitats Regulations Assessments (HRAs) of other regional plans with respect to their implications for sites included in this assessment. Habitat Regulations Assessments concluded that there would be no adverse effects for any of the sites in this assessment as a result of the North West and the Yorkshire and Humber RSSs. Table 6 lists impacts identified in connection with the East Midlands and South West RSSs and the Wales Spatial Plan.

Table 6 Possible in combination effects on European Sites due to neighbouring RSSs

	EM RSS (Proposed Changes)	SW RSS (Proposed Changes)	Wales Spatial Plan
Humber Estuary	Further development along the Trent could cause adverse effects on water supply and water quality. A precautionary approach is required until water supply and water treatment capacity can be confirmed and any necessary Habitats Directive review has been carried out.		
Peak District Dales	Diffuse air pollution affecting this site is likely to continue to increase in future and monitoring is recommended to strengthen the evidence base for practical avoidance measures.		
River Mease	General measures may not be sufficient to avoid adverse effects in future from increased abstraction and wastewater discharge coupled with pressure from increased tourism. Monitoring recommended to provide a stronger evidence base for phasing of development and review of infrastructure needs.		
South Pennine Moors	Increased visitor levels may cause damage although steps have been taken in the Plan to mitigate this. Diffuse air pollution may increase, and although a new policy is included on air quality to mitigate effects site-specific measures may be needed in future.		
Peak District Moors	Diffuse air pollution is likely to increase although the new air policy may help to mitigate this. Future air quality monitoring would help to strengthen the evidence base for avoidance/compensation. Disturbance is likely for breeding birds and damage to		

	EM RSS (Proposed Changes)	SW RSS (Proposed Changes)	Wales Spatial Plan
	habitats from increased tourism and recreation.		
River Wye SAC		Uncertain that there will be no adverse effects from water abstraction arising from the higher housing growth envisaged in the Proposed Changes and a weakening of water efficiency requirements in developments. Also uncertain that no adverse effects on air quality due to uncertainty about exceedance of critical levels and uncertainty of effect of RSS on transport.	Potential overall decline in habitat quality arising from urban and economic development. Plan may increase pressures from recreation and tourism. May be affected by water abstraction, flood protection and water quality issues.
Severn Estuary sites		Uncertain that there will be no adverse effects from water abstraction and water quality arising from the higher housing growth envisaged in the Proposed Changes and a weakening of water efficiency requirements in developments. Also uncertain that no adverse effects on air quality due to uncertainty about exceedence of critical levels and uncertainty of effect of RSS on transport.	Potential overall decline in habitat quality arising from urban and economic development. Plan may increase pressures from recreation and tourism. May be affected by water abstraction, flood protection and water quality issues. Transport effects may result on the following sites as a consequence of the Plan
Walmore Common SPA/Ramsar		Uncertain that there will be no adverse effects from water abstraction arising from the higher housing growth envisaged in the Proposed Changes and a weakening of water efficiency requirements in developments.	
River Dee and Bala Lake SAC			Potential overall decline in habitat quality arising from urban and economic development. May be affected by water

	EM RSS (Proposed Changes)	SW RSS (Proposed Changes)	Wales Spatial Plan
			abstraction, flood protection and water quality issues.
Berwyn and South Clwyd SAC			Potential overall decline in habitat quality arising from urban and economic development. Plan may increase pressures from recreation and tourism
River Usk SAC			Potential overall decline in habitat quality arising from urban and economic development. Plan may increase pressures from recreation and tourism. Transport effects may result as a consequence of the Plan.
Fenn's, Wixhall, Bettisfield, Wem and Cadney Mosses SAC			Plan may increase pressures from recreation and tourism
Wye Valley and Forest of Dean Bat Sites			Plan may increase pressures from recreation and tourism

4.2 Proposed approach to Stage 2 Appropriate Assessment

Interpretation of the significance of possible effects (identification of LSE's) requires assessment of Phase 3 Options against the baseline situation, taking account of existing threats and pressures on European Sites in the Region and their vulnerabilities, as outlined in the previous chapter. It is also necessary to consider those effects associated with Phases 1 and 2 for which mitigation may be required through Phase 3 and other plans and projects which might give rise to in-combination effects. The stage 2 appropriate assessment will consider:

- How options on Culture, Sport and Tourism might affect numbers and types of visits to European sites.
- Implications of plans for development of renewable energy infrastructure and whether guidance can be given on avoidance of impacts on European Sites.
- How changes to Green Belt Policies might affect land use in and around European sites.
- How the environmental policies in Phase 3 could help to safeguard areas adjacent to European sites which are important for maintaining their integrity.
- Whether any European sites are affected by existing mineral workings and whether the level of regional apportionment might require extraction from areas that might affect European sites?

- The extent to which options and policies in Phase 3 might cause further air pollution and effect levels of deposition at European Sites
- Whether new flood risk management policies might have any implications for patterns of flooding and/or flood-related pollution affecting European sites.

Appendix A

Phase 3 Revision Topics and Options, their potential impacts and European sites likely to be affected		
Phase 3 Revision Topics and Options	**Potential impacts**	**European Sites and issues to be considered further in Stage 2**
Critical Rural Services		
Option 1: Sustainable – climate change driven, with an emphasis on consolidating existing service centres so that essential services can be sustained and need for transport is reduced. ***Option 2***: Community-based – more emphasis on a 'bottom-up' approach to identification of important services	Both options have possible implications for European sites due to changes in transport patterns. Beneficial effects possible depending on extent to which public transport substitutes for travel by car.	More information required about likely changes in transport volume/ patterns in order to predict implications for local and diffuse air pollution.
Communities for the Future – Sites for Gypsies, Travellers and Travelling Showpeople		
Option1: Need Where it Arises basis ***Option 2***: Planning Criteria basis ***Option 3***: Re-distribution of existing provision	Proposed approach to development of ***Option 2*** already includes European sites as a consideration. Note that ***Option 1*** could have implications for some European Sites including Cannock Chase SAC. Any re-distribution (***Option 3***) should take implications for European Sites into consideration.	Significant effects unlikely, but sensitive locations near European Sites should be avoided. It may be necessary to flag this as a constraint for consideration at more detailed levels of planning. An indicative distance/ limit could be assigned which might indicate the need for more detailed assessment (10km?).
Culture, Sport and Tourism		
Scope of assets in PA10 Part A: spatial options for updating PA10A, the Culture, Sports and Tourism Assets Portfolio with option 1 proposing removal of the list of sites and Options 2 and 3 amending it	Sites included on the list could be more actively promoted and therefore exposed to increased	Several European sites could be affected by promotion of tourism through policy PA 10. Difficult to appraise risks to specific European Sites at this stage as proposed changes not identified. Some assets lie close to or within European sites where visitors are already having adverse effects. In C1 reference is made to Cannock Chase AONB, Shropshire Hills AONB, Wye Valley AONB and Symonds Yat. Specific measures may be needed to address/control damage to sites.
PA 10B and C- addressing strategic gaps in Culture, Sports and Tourism Assets Provision: addresses how the WMRSS could influence and support delivery of regionally significant cultural sports and tourism assets	Impacts unclear until proposed policy changes are identified. However Several European sites could be affected by promotion of tourism	Likely to be non-locational: may be opportunities to add generic policy caveats or list sensitive sites to avoid. Possible sites include Cannock Extension Canal SAC, Cannock Chase SAC, Peak District Dales SAC, River Clun, River Wye SAC, Wye Valley

Phase 3 Revision Topics and Options, their potential impacts and European sites likely to be affected		
Phase 3 Revision Topics and Options	**Potential impacts**	**European Sites and issues to be considered further in Stage 2**
through revision of existing WMRSS Policy PA10 and developing new policy	through policy	Woodlands, South Pennine Moors, River Dee and Bala Lake..but not possible to confirm until specific changes recommended.
Quality of the Environment Policies QE2 to QE9		
QE2 Quality of the Environment ***Option 1***: Socio-Environment led Encourage conservation and enhancement of brownfield land that contributes to biodiversity or meets needs for greenspace, and target redevelopment to other sites in sustainable locations. ***Option 2***: Development led Target redevelopment and re-use of brownfield land in areas identified for significant growth, promoting use of appropriate techniques to determine the most appropriate use of individual sites. ***Option 3***: Spatial Strategy led Prioritise redevelopment and re-use of brownfield land that would enhance the image and attractiveness of the region, addressing particularly areas of poor environmental quality in and around the major urban areas and regeneration zones.	***Options 1*** and ***3*** appear more favourable in terms of commitment to addressing poor environmental quality and focusing redevelopment on major urban areas and regeneration zones. Both present opportunities in terms of development of green infrastructure and biodiversity networks (see below), both of which could play a part in supporting European sites or buffering them against impacts from land use change. Any possible land use changes in the Green Belt?	Over-arching options relating to emphasis and distribution of development. Most European Sites potentially affected but beneficial effects possible.
QE3 – Creating a high quality built environment for all, to be superseded by proposed Policies SR2 and SR3 in the Phase 2 revision.		Implications generally positive and dealt with through Phase 2HRA recommendations
Policy QE4. A revised policy and text for QE4 – Greenery, urban greenspace and public spaces.	Three approaches have been considered: ***Option 1***: Green infrastructure approach [Should the Regional Spatial Strategy advocate an integrated, multi-functional approach as defined by green infrastructure planning?]	Options 1 and 2 do not appear to be mutually exclusive and both would benefit European sites. Need to consider role of green infrastructure with regard to biodiversity and landscapes resilient to effects of climate change and to consolidate and buffer European sites such as Cannock Chase SAC.

Phase 3 Revision Topics and Options, their potential impacts and European sites likely to be affected		
Phase 3 Revision Topics and Options	**Potential impacts**	**European Sites and issues to be considered further in Stage 2**
	Increased emphasis on Green Infrastructure likely to have beneficial effects ***Option 2***: Requirement for green infrastructure strategies. [Should green infrastructure strategies be required for all local authority areas, or for priority areas such as growth areas?] Likely to have beneficial effects, allowing local action to integrate GI with requirements for European sites. ***Option 3*** (recreational resources) seems to have a very different focus from the other two options, with the emphasis purely on green infrastructure for recreation. There is a potential missed opportunity for biodiversity enhancement but alternatively could be used as part of a mitigation strategy to focus visitors away from European sites.	
Policies QE5: Protection of the historic environment	No issues identified	No issues identified
QE6: Conservation, Enhancement and Restoration of the Region's landscapes	Scope for ensuring that landscape, biodiversity and European Site interests are addressed in an integrated way.	Beneficial effects possible if management of landscape delivers ecological networks that support biodiversity in European Sites.
QE7 – Protecting, managing and enhancing the region's biodiversity and nature conservation resources	Likely beneficial effects	Beneficial effects for all sites in the Region if biodiversity is protected and enhanced and Regional targets are delivered.
QE8 – Forestry and Woodlands	Likely beneficial effects	Likely beneficial effects but siting of woodlands should take account of implications for European sites and associated species (e.g. and not remove supporting habitat to replace it with woodland)
QE9 – the Water Environment	Possible beneficial effects.	Needs further consideration due to pressure on water supplies in the region (refer to results of Phase 2 HRA and supplementary studies) and the implications of changes in surface water flooding for European Sites, in particular Pasturefields Saltmarsh SAC,

Phase 3 Revision Topics and Options, their potential impacts and European sites likely to be affected		
Phase 3 Revision Topics and Options	**Potential impacts**	**European Sites and issues to be considered further in Stage 2**
		and riverine SACs. See also proposed new possible policy related to flood risk management.
Air quality ***Option 1***: Retain as existing [Should the Regional Spatial Strategy make no changes to text other than referring to updated national guidance?] ***Option 2***: Update to reflect policy changes [Should the Regional Spatial Strategy update the text to refer to the impact of the growth agenda and the findings from the Habitat Regulations Assessment?] Option 3:Sub-regional impacts [Should the Regional Spatial Strategy identify areas of the region with poor air quality, or vulnerable to adverse impacts from poor air quality?]	***Option 1*** provides little or no scope to seek locally relevant solutions or deal with air pollution for specific sites. ***Option 2*** could be positive by allowing changes responding to HRA findings. ***Option 3*** would allow for site-specific solutions	Likely impacts depend on option selected and resulting recommendations for policy. New text expected to be beneficial, reflecting findings of HRA of Phase 2.
Integrated Approach to the Management of Environmental Resources	***Option 1***: Environment led Promote a landscape scale approach, the protection of key assets and the improvement of poor quality environments across the region. ***Option 2***: Development led Target areas affected by significant growth, promoting the use of characterisation techniques, with priority given to the protection of key assets and addressing areas of poor environmental quality in and around growth areas. ***Option 3***: Spatial Strategy led Enhance the image and attractiveness of the region, with priority given to the protection of key assets and addressing areas of poor	***Options 1*** or ***3*** offer more potential benefits to European sites than Option 2. It may be necessary to go further than just establishing principles for European sites and to demonstrate that positive enhancement and net environmental gain will be achieved to compensate for other impacts including those identified in the HRA for Phase 2.

Phase 3 Revision Topics and Options, their potential impacts and European sites likely to be affected		
Phase 3 Revision Topics and Options	**Potential impacts**	**European Sites and issues to be considered further in Stage 2**
	environmental quality in and around the major urban areas and regeneration zones	
Flood risk ***Option 1***: Reflect recent policy and evidence ***Option 2***: Provide guidance on reducing flood risk ***Option 3***: Update text only	Possible new policy to be introduced, impacts not possible to predict at present but could be generally beneficial.	Measures to manage/reduce surface water runoff likely to benefit European sites, for example by supporting integrated drainage projects which would reduce pollution associated with flooding. The options should contain the text set out on page 29 e.g. "A requirement for all new development to incorporate sustainable drainage systems unless it would be impractical to do so." Some specific possible benefits for sites known to be prone to pollution associated with surface water flooding as well as for aquatic/ riverine SACs.
Energy: Location of renewable energy and low carbon technologies ***Option 1***: retain existing RSS Policy EN1 with the aspiration that the region should meet the national target. ***Option 2***: Adopt Regional Energy Strategy Targets and ***Option 3***: Develop sub-regional targets.	Possible land take, disturbance and mortality related to development of energy infrastructure.	Technology specific and location-specific policies will help confirm likely impacts and how to avoid hold ups lower down in the planning system. It may be necessary to take a constraints-based approach, developing criteria for avoidance of impacts on European Sites through appropriate siting and design and by ensuring sufficient regional baseline information is available, particularly for protected species when outside of European Sites.
Green Belt: ***Option 1***: Apply PPG2 existing situation. ***Option 2***: Develop a regional specific policy.	Not entirely clear what changes could occur under these broad options	Opportunity under ***Option 2*** to help buffer European sites by providing supporting habitat and other environmental services important for the integrity of European Sites. Sites in or near greenbelt include Cannock Chase SAC, Ensor's Pool SAC, Fens Pool SAC, Mottey Meadows SAC.
Minerals Policy		
Minerals: development of policies on safeguarding mineral resources and the future supplies of construction aggregates and brick clay	All options could cause impacts such as land take, disturbance, change in water levels and water pollution arising from future workings. Possible transport-related impacts also. These would have to be assessed in more detail at	Further information required to determine the extent to which the regional apportionment might give rise to the need for development of mineral resources with implications for European sites. Sites which could be affected by extension of existing workings

Phase 3 Revision Topics and Options, their potential impacts and European sites likely to be affected		
Phase 3 Revision Topics and Options	**Potential impacts**	**European Sites and issues to be considered further in Stage 2**
	other planning stages.	include: Peak District Dales, River Mease SAC, River Wye SAC, Midlands Meres and Mosses Phases I and II Ramsar

Appendix B

Participants in the Screening Workshop 19th June 2009

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David Clarke and Paride Piccinini (West Midlands Regional Planning Body)

Helen Wake (Natural England)

Maurice Barlow (Solihull Metropolitan Council)

Jeff Edwards (West Midlands Biodiversity Forum / Partnership)

Paul Wilcox (Staffordshire District Council)

Alison Brown and Malcolm New (Countryside Council for Wales)

Jim Davies and Chris Tidridge (Environment Agency)

Chris Parry and Alina Dobrita (The Wildlife Trust for Birmingham and the Black Country)

Other consultees:

Simon West, Forestry Commission

Bill Heslegrave, Forestry Commission