WYG Environment
part of the WYG group

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West Midlands Environmental Priorities Review

Final project report on behalf of:

West Midlands Leaders Board and Advantage West Midlands

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This report was commissioned by West Midlands Leaders Board (WMLB) and Advantage West Midlands (AWM), as the then regional responsible authorities, at the beginning of April 2010 to inform the development of a Single Regional Strategy.

Midway through the project the May 2010 General Election resulted in the establishment of the new coalition government and their subsequent announcement that planned new Single Regional Strategies would be abolished, with strategic housing and planning duties returned to local government. The project steering group took the view that this short study on environmental priorities remained useful for informing whatever arrangements or strategic planning documents emerge in the future.

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Executive Summary

Introduction

At the beginning of April 2010 the West Midlands Leaders Board (WMLB) and Advantage West Midlands (AWM), as the then regional responsible authorities, commissioned WYG Environment to provide a critical assessment of key environmental topics set out in the West Midlands Regional Spatial Strategy (WMRSS) and West Midlands Regional Economic Strategy (RES). The aim of this review was to develop a small range of options for the integration of key environment topics and issues for consideration into a single Regional Strategy or similar, in the context of the former WMRSS and RES.

Midway through the project the May 2010 General Election resulted in the establishment of the new coalition government and their subsequent announcement that RSS's and planned new Single Regional Strategies would be abolished, with strategic housing and planning duties returned to local government.

The project steering group took the view that this short study on environmental priorities remained useful for informing whatever arrangements and strategic planning documents emerge in the future, i.e. that there remained a need for a strategic approach to prioritising environmental issues for the West Midlands. Thus the results of this study could be used in the future development of some form of high level strategy or Action Plan for the West Midlands.

The starting point for the project was the list of environment topics in the WMRSS. This covered the natural, built and historic environment including waste, minerals and energy.

Methodology

A two stage risk assessment approach was used to critically assess and prioritise environmental topics by:

- Firstly, defining the risk (to the environment, society and the economy), then;
- Developing judgements about the level of priority for the West Midlands

Involving key strategic stakeholders was seen as critically important to the outcome of the review. Representatives from key strategic stakeholder groups and organisations in the public and NGO sectors were invited to make an active contribution to the discussion at a half day workshop hosted by the West Midlands Leaders Board and AWM.

Conclusions and recommendations

During the stakeholder workshops a number of common themes emerged including:

- Environmental assets and resources, both natural and cultural, are best managed according to their own geography, i.e. the spatial characteristics of each resource. Some of these geographies operate well at the landscape scale and are more 'encompassing' than others, for example river catchments and sub-catchments.

- Collaboration between local authorities is essential for successfully tackling many environmental issues, i.e. shared approaches and joint solutions are necessary. Further sub-regional working on some environmental topics such as feasibility studies on the location of renewable energy infrastructure, the provision of green infrastructure and the planning of water quality and supply in relation to major new development at a catchment level would be beneficial.

- Cross boundary working will also help to ensure that environmental priorities for the West Midlands can be effectively and sustainably addressed; just as major infrastructure projects for highways, rail and housing require strategic planning, so does the environment. A strategic approach to planning and management of environmental resources, in the widest sense, is required to avoid further fragmentation, decline in quality and loss of critical environmental assets essential for health and well-being.

- The evidence base developed for regional strategies remains valid; it is a valuable resource that needs to be used on a collective basis.

Based on a critical assessment of the environmental topics, application of the risk-based methodology (summarised in Matrix 2 – Appendix and discussion with stakeholders, the following topics emerged as priorities at the West Midlands level:

- **Energy supply and management** - The UK Renewable Energy Strategy expects regions to set targets for renewable energy in line with national targets or better where possible. The Regional Energy Strategy published in 2004 set a target for renewable energy for the Region of 5% by 2010. Currently, however, the region meets less than 1% of its electricity demand from renewable

energy. The West Midlands therefore needs to develop new targets for renewable energy taking into account the opportunities and constraints in the sub-regions.

The importance of addressing energy efficiency, particularly in existing development, needs to be stressed but is difficult to influence through local (let alone regional) planning processes. However, given the importance of the issue it is suggested that local authorities be encouraged to identify in their LDFs where major refurbishment opportunities would enable retrofitting of energy efficiency measures and renewable energy systems to existing buildings. In relation to renewable and low carbon energy it is recommended that a **West Midlands energy infrastructure opportunities map** be developed as a way of enabling all of the local authorities to consistently develop more detailed, locally responsive policies and initiatives. This would meet the need for "*an integrated approach to the management of environmental resources*".

- **Restoring degraded areas and managing and creating new high quality environment** This appears to be a regionally specific topic and it is considered that guidance for Major Urban Areas (MUAs as designated) and Settlements of Significant Development (SSD's) in particular, promoting the use of **Brownfield Action Plans** would be helpful. This new guidance should explain or describe exactly what the Actions Plans could cover in relation to climate change resilience (including flood risk management), green infrastructure, natural resource use and heritage aspects. The role of trees and woods in regeneration could usefully refer to sub-regional Forestry Framework objectives and include specific reference to the regional Woodlands Opportunity Map, zones and priorities.

- **Protection and enhancement of the historic environment -** The West Midlands has a considerable legacy of historic buildings, structures, monuments and landscapes. These assets are an important cultural resource, often with direct links to nature conservation interest and of considerable potential to be a critical economic asset for the West Midlands. However, the West Midlands historic environment has the highest regional level of risk on a national basis from new development and regeneration activity.

  This suggests a need for regional guidance and greater collaborative working between local authorities to promote the benefits of maintaining the historic environment to reinforce local distinctiveness and sense of place in order to realise the potential value to the economy i.e. strong links to leisure and tourism and heritage-led economic development. Guidance could emphasise the

importance of the region's undesignated resource, the importance of implementing the West Midlands' Heritage Strategy and identify which specific, regionally distinctive heritage assets need to be conserved, how and by whom.

- **Restoration, conservation and enhancement of the region's current and future landscapes** - there are many useful spatial frameworks and tools for enabling a landscape approach at the landscape-scale to enhancing and conserving environmental and socio-economic assets and patterns of use, but they are mostly voluntary with little statutory basis. If used consistently and effectively, they could make a real difference to the planning process. It is suggested that cross-boundary working between local authorities be encouraged to deliver named benefits for each specific area and sub-region by outlining what actions are necessary for optimising land management measures for climate change adaptation, focusing on characteristic landscape elements and features, e.g. such as woodland trees and forestry using the sub-regional Forestry Opportunities maps, green infrastructure strategies, agricultural regimes to protect soils, their carbon sequestration and flood risk management capabilities and so on. Specific areas, such as the MUAs, would need to be identified where cross-boundary working is essential for a consistent approach to infrastructure planning.

- **Biodiversity and geodiversity** - We recommend that consideration is given to developing guidance that reinforces the statutory responsibilities of public bodies related to the environment and biodiversity across the region. This could encourage each local authority, preferably at county and unitary level, but on a collective sub-regional basis for cross-boundary and cost reasons, to develop their own **local opportunities maps** and use these in producing robust, climate-change proofed LDF policies. These local policies ought to not only address the importance of conservation and management of biodiversity for its own sake, but also to optimise the provision of ecosystem goods and services like flood risk management and the supply of high quality water and healthy soils, i.e. green infrastructure. There are very strong relationships between biodiversity quality and soils and we suggest that the guidance could highlight these links.

- **Sustainable waste management; increasing resource productivity -** The flows of waste materials between areas could be reduced through increased resource productivity and if residual waste streams were rationalised. Although, seemingly well catered for in national waste guidance there is still a rationale to co-ordinate waste planning at the regional level because of the flows of household, commercial/industrial and construction and demolition waste from the MUAs to landfill

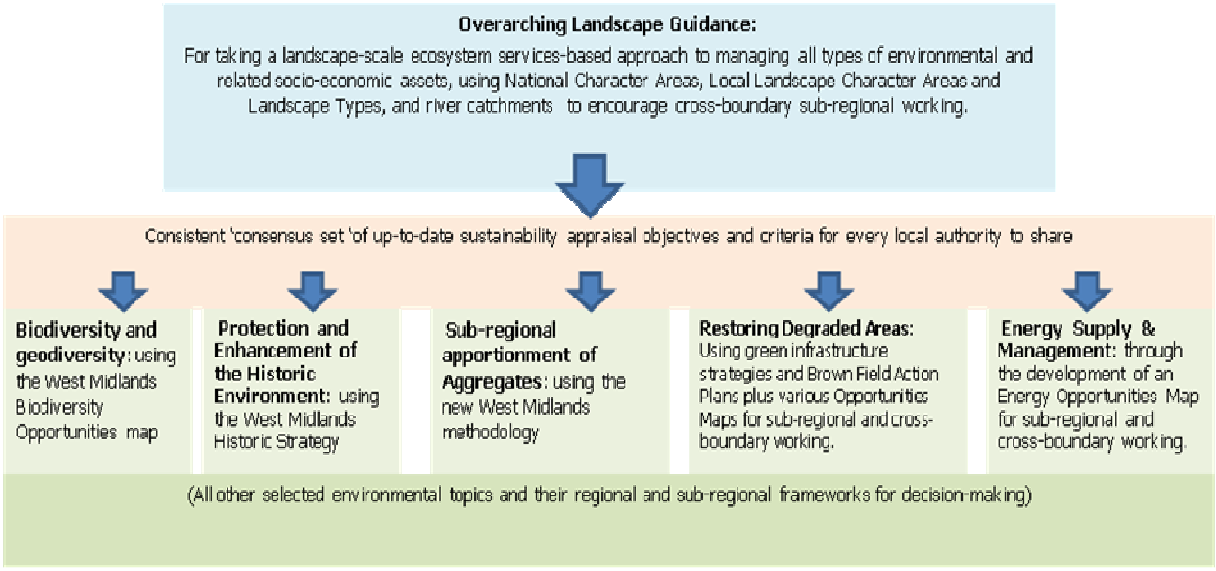
in adjacent areas, and the reverse flow of metals, waste electrical and electronic equipment, paper and hazardous waste into the major conurbations. Guidance and collaboration between sub-regions will continue to be required to agree tonnages of different waste streams and help ensure that waste management facilities of the right type, in the right place and at the right time are provided. The Regional Technical Advisory Body for Waste (RTAB) could co-ordinate the development of this guidance.

- **Apportionment of aggregates within the West Midlands** – There is a continuing need for regional guidance and cross boundary collaboration to ensure a balance between the supply of, and demand for, aggregates in the West Midlands. We also recommend that regional guidance on more sustainable approaches to aggregates use could focus on the importance of a consistent, collective approach to sustainable construction, using the West Midlands Sustainability Checklist as an ideal planning tool as well as the recently developed methodology for more sustainable aggregates apportionment. The Checklist could helpfully be used for all new development in the region in ways that help local planners to streamline the planning process.

An alternative approach for new environmental guidance

An alternative approach to the priorities identified above would be to take a wholly ecosystem services-based approach to the supply and delivery of environmental and related socio-economic benefits for the West Midlands. This would comprise the same prioritised topics described above but setting them within a hierarchy as shown below.

Figure 1: Potential topic hierarchy



The alternative policy approach shown above particularly emphasizes the need for a collective landscape-scale approach using landscape and river catchment units as the shared spatial framework for cross-boundary strategic and sub-regional working. In doing so it supports the development of local approaches but through collaboration, encourages leverage of working at sub-regional and more strategic scales to integrate standards, opportunities and to effectively and consistently tackle cross-border issues. This alternative approach strongly promotes a more bottom-up approach of the sort being discussed by the new coalition government for implementing national policy goals tempered by local needs. Local authorities working in sub-regional groups could further develop and pilot these ideas.

1.0 Introduction

1.1 Purpose of the review

At the beginning of April 2010 the West Midlands Leaders Board (WMLB) and Advantage West Midlands (AWM), as the then regional responsible authorities, commissioned WYG Environment to:

- Provide a critical assessment of key environmental topics set out in the West Midlands Regional Spatial Strategy (WMRSS) and West Midlands Regional Economic Strategy (RES);
- Develop a small range of options for the integration of key environment topics and issues for consideration in a single Regional Strategy or similar, in the context of the former WMRSS and RES.

The original purpose of this project was to provide a critical assessment of the key environmental issues that would need to be addressed in a Strategy for the West Midlands, and to advise on how these might be best articulated in a new type of integrated strategy.

The context for the purposes of this project took as its starting point the "quality of the environment" chapter in the current WMRSS. This included the natural, built and historic environment with waste, minerals and energy. The project team were also asked to consider the links to:

- Draft WMRSS Phase Two Revision sustainable region policies,
- Work carried out as part of the WMRSS Phase Three Revision,
- Those parts of the RES which dealt with the green economy, design, brown field land, regeneration of deprived communities and other environmentally-related matters.

The full list of environmental topics that were used as the starting point for the review of environmental priorities are listed and explained in section 1.2.2 below.

We were asked to refer to, and build on, the work of the region's Defra Agenda Group (DAG), comprising the Government Office for the West Midlands, AWM, Environment Agency, Natural England and the Forestry Commission. The DAG had been developing a set of natural environment priorities specific to the West Midlands but their project did not include wider environment issues such as climate change, resource productivity, waste, historic environment or similar aspects of the wider environment.

Specific tasks that were undertaken by the project team in completing this project included:

(i) a review of the latest and emerging guidance on the content of Regional Strategies as it related to the environment;

(ii) a desk review of the key environmental topics and issues, in current and emerging policy documents in the West Midlands, including the WMRSS, the WMRES and key regional sectoral strategies, including the latest and current work on Phases Two and Three of the WMRSS Revision;

(iii) The development of a methodology and criteria for identifying and prioritising regional environmental topics and issues in the West Midlands.

(iv) Consultation with key regional environmental stakeholders including the statutory environmental agencies (Environment Agency, Natural England, English Heritage and Forestry Commission) and other regional and sub-regional organisations.

1.2 The changing policy context

Midway through this project the May 2010 General Election resulted in the establishment of the new coalition government and their subsequent announcement that RSS's and planned new Single Regional Strategies would be abolished, with strategic housing and planning duties returned to local government. The project steering group took the view that this short study on environmental priorities remained useful for informing whatever arrangements and strategic planning documents emerge in the future, i.e. that there remained a need for a strategic approach to prioritising environmental issues for the West Midlands. Thus the results of this study could be used to inform the future development of some form of high level strategy or Action Plan for the West Midlands.

Despite these governmental changes in strategic policy and governance arrangements it remains useful to recap on the development of the WMRSS to understand the project's starting point and scope of environmental topics under consideration in the following sections.

1.2.1 Evolution of the Regional Spatial Strategy

The West Midlands Regional Spatial Strategy (WMRSS) was first published in its present form in June 2004. At that time, the Secretary of State supported the principles of the strategy but suggested several issues

that needed to be developed further. Given the range of matters to be considered, the volume of work and the long timescales involved, the West Midlands Regional Assembly, as the Regional Planning Body (RPB) at that time, agreed with Government that the issues raised by the Secretary of State should be looked at in three phases:

- Phase One - Black Country Study.
- Phase Two - Examined housing figures, centres, employment land, transport and waste.
- Phase Three – Examined critical rural services, culture, sport and tourism, various regionally significant environmental issues, particularly minerals and the provision of a framework for new Gypsy and Traveller provision.

After due process, the Phase One Revision was incorporated into a revised WMRSS that was issued in January 2008. Work on the Phase Two Revision was in the final stages with the Proposed Changes due to be published in mid 2010 following an Examination In Public that took place between April and June 2009. Work on Phase Three had started but had not progressed to the development of a Preferred Option.

One of the objectives of the WMRSS Phase Three Revision was to update the existing 'Quality of the Environment' policies in the WMRSS and consider the need for new policies related to flood risk, renewable energy and Green Belt.

In July 2007, the Government through its Sub-National Review of Economic Development and Regeneration proposed to bring together the Regional Spatial Strategies and Regional Economic Strategies into a single Regional Strategy document. It was agreed in September 2009 by the West Midlands Regional Assembly (WMRA), GOWM and Advantage West Midlands that the Phase Three work strands would be progressed through the new Regional Strategy process.

1.2.2 Regional environmental issues

The original 2004 WMRSS and all subsequent revisions included a regional policy section on Quality of the Environment which covered environmental, energy, minerals and waste policies.

In May 2009, as part of the Phase Three Revision, a project plan was published setting out the key policy areas to be revisited and future technical work planned to inform the Phase Three review. These environmental issues listed within the Phase Three Revision were subsequently progressed as Policy Recommendations to feed directly into the preparation of the new single Regional Strategy.

As there were a number of choices about the nature and content of new or revised policies, an Options document was issued for consultation in June 2009 to identify those choices and the consequences of adopting them. At the Options stage, policies were not fixed and everybody with an interest - including statutory, commercial and third sector organisations and partnerships – were given the opportunity to comment before the Interim Policy Statements and Policy Recommendations were developed. To accompany the Options consultation document a series of background reports including "Quality of the Environment" and "Minerals" reports (June 2009) were prepared.

The Policy Recommendations relating to the environment and minerals are listed below:

- *Integrated Approach to Management of Environmental Resources*
- Restoring Degraded Areas & Managing & Creating High Quality New Environments
- Green Infrastructure
- Protection & Enhancement of Historic Environment
- Conservation, Enhancement & Restoration of the Region's Landscape
- Protecting, Managing & Enhancing Region's Biodiversity and Geodiversity
- Trees, Woods and Forestry
- *Protection of Agricultural Land*
- *Air Quality*
- Energy Efficiency - Promoting Energy Efficiency within Existing Development
- *Renewable Energy - Targets*
- *Renewable Energy - Criteria for Ensuring Appropriate Locations*
- *Positive Uses of the Green Belt*
- Safeguarding Mineral Resources
- *Future Brick Clay Provision*

[*Policy recommendations listed above in italics were not explicitly covered in the Jan 2008 WMRSS as environmental policy but were proposed as new policies in the Phase Three Revision.*]

Each of the environmental Policy Recommendations set out above, approved in their latest format by the WMRA in February 2010, were envisaged to be taken forward and implemented into the new style Regional Strategy for the West Midlands. Sustainability Appraisals were also undertaken to look at the environmental, economic and social effects, singly and in combination, of the emerging and revised policy

recommendations. It was considered that these Policy Recommendations were a good starting point for identifying environmental priorities at a regional level.

1.3 Scope of this review

1.3.1 CLG national guidance on the preparation of Regional Strategies

Although the CLG/BIS guidance on Regional Strategies issued in February 2010 is now no longer required, it still offers some helpful advice on how to prioritise and integrate environmental issues. For example, the guidance indicates that policies should translate national policy to specific regional or sub-regional challenges. Equally, challenges (for example, renewable energy) can be translated into opportunities. The Government guidance also said that policies should:

- Be **regionally specific**;
- Be **needed** because they provide a framework to assist in local delivery;
- Be **deliverable**, taking into account the availability of resources and responsibilities of those developing the policies; and
- Be measurable so that **progress can be monitored**.

On the other hand, the guidance said that policies were not required on every topic and should not:

- Replicate or reformulate national policy or
- Address issues more appropriately considered at the local level.

When considering environmental priorities it is particularly important to consider whether it would be possible to actually have any strategic control or influence over a topic or issue at a West Midlands-wide level. Work undertaken by the regional bodies and groups such as the DAG identified the long list of topics at the core of this review. The challenge was to identify and agree which topics and issues could be directly influenced and guided at a regional level.

2.0 Methodology

2.1 Overview of the approach taken

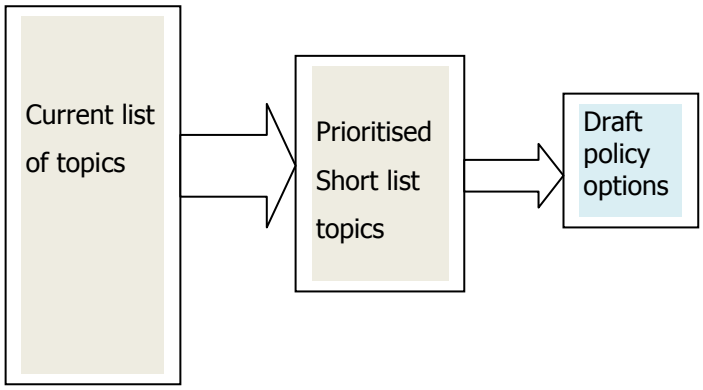
To recap, the starting point for this study was a critical assessment of the environmental topics listed in section 1.2.2 above as an expanded and complete list of potential topics taking full account of the WMRSS Phase Two Revision, WMRSS Phase Three Policy Recommendations, the West Midlands RES and the natural environment priorities emerging from the West Midlands DAG.

It was decided that because the list comprised such a mixture of policy statements, themes and issues it was best to simply call them 'topics'. In view of the CLG guidance we first agreed with the steering group that two of the topics; an *integrated approach to the management of environmental resources* and *climate change adaptation* should be removed from the list because they were:

a) already well enshrined in national policies and legislation, and

b) best dealt with as cross-cutting themes in the review methodology.

The ultimate aim of the study was to rationalise the topic list by condensing it into a small range of priority options that successfully grouped key environmental issues and needs for strategic guidance and collective action. The diagram below illustrates the process simply.



Because the project started with a 'long list' of topics put forward and championed by different groups with their own particular specialisms and agendas, it was necessary to consider what success might look like for these stakeholders, as well as for WMLB/AWM. Simplifying this list by trying to prioritise topics and their related issues obviously meant that some issues would end up as a lower priority than others, which may

not be seen as 'success' by particular stakeholders. For this reason our intention was to bring stakeholders in at appropriate points in the process to achieve the best possible level of ownership and consensus – while realising that this was unlikely to ever to lead to full agreement. Our aim was to devise a transparent and open process of assessment that could be shared by stakeholders, refined and further developed over time. A risk-based methodology that removed duplication by grouping similar topics and issues together was the chosen approach. At the beginning each topic was given an equal, baseline level of importance, using criteria to help group and narrow down the list into a much smaller number of headline topics, issues and priorities for action.

2.2 Methodological framework and criteria

Using a risk-based approach had the benefit of bypassing the need to rank or score different topics and issues that were not comparable. It was agreed with the steering group that the risk assessment would comprise two parts; the first stage being an assessment of the level of risk to which each listed topic was vulnerable. The second stage of the assessment process was to then use an agreed set of criteria to determine whether the topic was regionally specific, was or was not adequately covered by existing national policies and policy interventions at national and local levels and so on. These criteria are explained in more detail at Section 2.2.2 on pages 13 - 15.

2.2.1 Development of Matrix 1: Defining Risk

Matrix 1 set out a high-level risk assessment using summarised evidence about the current state, characteristics and trends in the West Midlands for each of the environmental topics. A review of the evidence base used to create these summaries is attached at Appendices A and B to this report.

The purpose of Matrix 1 was to establish at what level (low, medium or high) each environmental topic is at risk of loss of quality and/or extent or degradation if current trends continue without further policy intervention at any scale. Because of the need for an integrated approach outlined in the CLG's Policy Statement on Regional Strategies, the risk to the environment was also considered in terms of related level of risk to people/society and the economy across the West Midlands.

There are several well-established approaches to risk assessment, for example, in Environmental Impact Assessment, but these require specific and very precise data about the nature of receptors, the probability,

scale and magnitude of impacts. Even using very precise parameters, decisions about level of risk invariably come down to professional judgement based on experience. For this reason we asked stakeholders to decide collectively whether the level of risk for each topic was low, medium or high, based on the evidence available from the desk review about what was known about each environmental topic in terms of the current state of assets, key trends and issues. The project team first completed a draft risk assessment and submitted this to the steering group to review and amend. The resulting revised draft was then forwarded to stakeholder representatives in advance of the project workshop, together with a briefing note on the methodology.

Stakeholders were invited to validate this draft assessment or to edit it to their satisfaction at the workshop. The following list of questions was provided to help stakeholders use and test the draft risk assessment:

- What are the **risks to the environment** (specify risks) of no intervention at the regional level? (Large, Medium or Small)

- What are the **risks to people** (specify risks) from this risk to the environment? (Large, Medium or Small)

- What are the **risks to the economy** (and which sectors) from this risk to the environment? (Large, Medium or Small)

- What is the probability / likelihood of the risk(s) happening (High, Medium or Low)

- What would be the full **impacts to the environment, to people and the economy** (which sectors) – stakeholders were invited to *add to the explanatory notes in these columns as they saw fit but further notes and comments had to be evidenced, i.e. not anecdotal*

- How would the risk(s) **impact geographically** – i.e. which geographic areas would be affected and how? Stakeholders were invited *to add further comments and information based on their professional opinion and knowledge, supported by existing evidence.*

2.2.2 Development of Matrix 2: judgements about level of priority for the West Midlands

Having made a judgement about the overall level of risk for each environmental topic, this information was then brought forward into the second column of Matrix 2 for the next stage of the methodology.

The columns in Matrix 2 comprised a set of criteria to help decide if a topic was regionally distinctive enough to be brought forward for consideration as a either a policy option or priority for action at a West Midlands strategic level. Stakeholders were invited to test the methodology towards its conclusion, working towards an initial outcome for each topic. Guidance for each of the criteria/column headings was as follows:

- *Scale and magnitude of risk* – explained as an opportunity to record what is known about the level and magnitude of the types of risk identified in Matrix 1. For example, how big is the risk and does it affect the whole region, or does it affect a number of sub-regions across the region at different levels of magnitude?
- *Is the risk regionally distinctive and geographically specific?* – this is where specific geographic zones and areas where the risk is greatest or where regional intervention is most needed was to be recorded.
- *Opportunities - what benefits would result if this risk was reduced?* Having considered all of the negative aspects affecting each environmental topic, this column provided the space for recording what the potential benefits would be – environmental, social and economic - if the current risks were resolved. By including this criterion/question we were aiming to elicit ideas from stakeholders for what a regional policy or action might need to be, or point towards it.
- *Is regional strategy guidance needed on this topic or is it already well catered for at national and local levels*? – essentially, this question was about trying to identify if there is an existing national and/or local policy gap that a regional policy could resolve.
- *Could a Strategy for the West Midlands control or influence outcomes on this topic, or is it an issue on which a Strategy could only express concern.* This question asked what level of control or influence regional guidance could actually have on a specific topic.
- *Monitoring & measuring - what Key Performance Indicators (KPIs) exist or could be used?* This column attempted to record whether it would be possible to monitor and measure the progress of any regional guidance on this topic. Potential new indicators, as well as those that already exist, were listed.
- *Inclusion in Strategy for the West Midlands?* Based on the responses in the previous columns, this column sought stakeholders views on whether they thought there was a need for a West Midlands-wide policy on this topic.

Stakeholders were asked to familiarise themselves with the methodology by trying it out before coming to the workshop. On the day itself each group was provided with a set of maps illustrating the extent and, in some cases, the geography of particular issues for different topics as an aid to discussion. Full details of the mapped information used are given below.

Table 1; Details of mapped information and sources used for the Workshop

Revised Environmental Topics	Map/variables	Maps
Basemap	MWay, Trunk roads and Primary Routes Railways Strategic River Corridors and Canals Urban Areas RA Boundary Strategic Authority & District Boundaries Green Belt Woodland	**Maps 1 – Base Map** A - Base Map
Restoring degraded areas and managing and creating new high quality environments	Urban areas (proxy)	N/A
Restoration, conservation and enhancement of the region's **landscapes**	National Character Areas and CQC (NE) Trees & woodlands – NIWT if possible (NE) ALC (Magic) Parks & Gardens, HM, NMR (EH) Green Belt (WMRA)	**Maps 2 - Landscapes** A – NCA & CQC, NIWT B – ALC, Historic, Green Belt?
Protecting, managing and enhancing the region's **biodiversity** and geodiversity	West Midlands 50 year biodiversity vision and opportunity map (NE) Geological SSSIs & condition (NE) Water Dependent Natura 2000 Catchments (EA)	**Maps 3 – Bio/geodiversity** A – 50 yr vision, Geological SSSIs B – EA WQ Map A4 only
Water environment	Policy areas and zones with properties in FZ2 >10% (EA) WFD Sedimentation risk (EA) Peat and Heath (EA) Water quality (EA)	**Maps 4 - Water** A - EA Floodmap, Flooding FZ PDF B- EA Soil ALC PDF
Air quality	Air quality (EA) Air quality management areas (EA)	**Maps 5 – Air quality** A – EA Air PDF A4 only or Air SACs A1 PDF with SACs too
Energy for a low carbon economy		N/A
Safeguarding soils and mineral resources in the West Midlands	NERC/BGS Minerals resources map A2 PDF	**Maps 6 – Soils & Minerals** A – Mineral resources PDF

3.0 Analyses and results

3.1 Engagement with and contributions from stakeholders

Involving and working with key strategic stakeholders was seen as critically important to the outcome of this review by both the steering group and the project team. Representatives from key strategic stakeholder groups and organisations in the public and NGO sectors were invited to make an active contribution to the discussion at a half day workshop hosted by the West Midlands Leaders Board and AWM.

The two-part workshop firstly covered checking of the methodology for Matrix 1 in order to agree the draft risk assessment for each of the long list of environmental topics that had previously been completed by the steering group and project team. The second half of the workshops involved groups working through Matrix 2 to decide which environmental priorities should to be taken forward for consideration in new guidance or an action plan for the West Midlands. Participants were split into 6 groups each working independently on a pre-determined list or cluster of related topics.

Following the workshop, a two week consultation period provided stakeholders with a further opportunity to comment and agree on the core environmental priorities to be taken forward by checking the collated discussion points recorded by each group. This period also allowed the representatives of the various stakeholder organisations further time to consider and pass on any further feedback from their sector specialists concerning outputs from the workshop.

Details of the workshop format and feedback can be found in Appendix C. The final agreed versions of Matrix 1 and 2 are available as Appendices D and E to this report.

3.2 The geography of key environmental issues

A common theme that most of the workshop groups documented and subsequently agreed during the final plenary session was that environmental assets and resources, both natural and cultural, are best managed according to their own geography, i.e. the spatial characteristics of each resource. Some of these geographies operate well at the landscape scale and are more 'encompassing' than others, for example river catchments and sub-catchments. Similarly National Character Areas and landscape types which were

deliberately developed for encouraging collaboration across administrative areas, between different organisations, groups and agendas are equally useful for strategic policy purposes. These are 'natural resource units' that already have a well established place in EU and national policies and policy interventions, e.g. the Water Framework Directive, the European Landscape Convention and catchment sensitive farming measures.

A second theme to emerge from the workshop was that collaboration between local authorities is essential for successfully tackling many environmental issues, i.e. shared approaches and joint solutions are necessary. There was an evident consensus that it is better to work together locally, i.e. sub-regionally with a range of partners to achieve a sustainable solution rather than having something – one size fits all - imposed from above.

Much greater collaboration at the sub-regional level to tackle priorities for action would be beneficial but currently agencies, authorities and organisations tend to work to their own administrative geographies. Further **sub-regional** working on some environmental topics such as feasibility studies on the location of renewable energy infrastructure, the provision of green infrastructure and the planning of water quality and supply in relation to major new development at a catchment level would be beneficial.

The evidence base developed for regional strategies remains valid; it is a valuable resource that needs to be used on a collective basis. We recommend that this evidence should be used by local authorities and the agencies working closely in partnership across administrative boundaries. It is only by working across boundaries can these administrations effectively measure, monitor and manage the health and integrity of natural resource units and their supply of ecosystem goods and services upon which the economy and communities of the West Midlands depend on.

Cross boundary working will help to ensure that environmental priorities for the West Midlands can be effectively and sustainably addressed; just as major infrastructure projects for highways, rail and housing require strategic planning, so does the environment. A strategic approach to planning and management of environmental resources, in the widest sense, is required to avoid further fragmentation, decline in quality and loss of critical environmental assets essential for health and well-being.

3.3 Emerging national policy priorities and options

In identifying possible environmental priorities for the West Midlands, it is useful to consider how national policy for the environment is evolving to progress and implement the UK government's international commitments for biodiversity, in addressing climate change impacts and putting sustainable development into practice more generally. How these national policy signals will be operationalised and acted on should be explicit in any new environmental guidance or action plan for the West Midlands, so that it is very clear how local action tailored to local needs and circumstances can help to meet strategic policy goals and targets.

3.3.1 Defra's Ecosystems Approach and national action plan

> "We all depend on the natural environment. It provides the essentials of life, inspires us, and is central to our health, wealth and happiness. But we are currently not using it sustainably."
>
> *Defra 'Natural Environment Narrative', April 2010*

The concept of 'Ecosystem Services' is at the core of current and emerging national policy for the natural environment. Ecosystem service approaches to resource planning and management are also being brought into the planning system (see section 3.3.2 below). People, and society as a whole, benefit from ecosystem services provided by the natural environment. These benefits include:

- clean air and water;
- physical and mental health, for example through access to green spaces, both urban and rural, and genetic resources for medicines;
- Protection from hazards, through the regulation of our climate and water cycle;
- a strong and healthy economy, gained through raw materials for industry and agriculture, or through tourism and recreation; and
- a wide range of social, cultural and educational benefits, wellbeing and inspiration from interaction with nature.

Ecosystem services are commonly categorised using the global Millennium Ecosystem Assessment framework. This identifies four broad categories of ecosystem service that each provide benefits that are essential for both life itself, and for quality of life:

- **Provisioning services** – these services give us products and goods from ecosystems such as food, fibre, biochemicals and genetic material.
- **Regulating services –** are those that provide or seek to shape our climate, the incidence of disease, the supply of water and its quality. Many of these services result from specific resource geographies, for example most of the water used in the West Midlands, particularly the Birmingham connurbation comes from Wales;
- **Cultural services –** people are part of ecosystems; we gain considerable non-material benefits from our interaction with the natural and historic environment. This is very evident in the UK, and the West Midlands in particular, considering the very rich cultural heritage;
- **Supporting services –** fundamental and often very complex functions such as soil formation, microbial processes and nutrient cycling that underpin the supply of the other three types of ecosystem services that we benefit from.

The following diagram, based on the Millennium Assessment (2003) and taken from Defra research report NR0107 (2008) illustrates these relationships;

Table 2; Relationship between 'Supporting' and other types of ecosystem services

Provisioning Services	**Regulating Services**	**Cultural Services**
Products obtained from ecosystems • Food • Fresh Water • Biomass fuel • Fibre • Biochemicals • Genetic resources	*Benefits obtained from regulation of ecosystem processes* • Climate regulation • Disease regulation • Water regulation • Water purification • Pollination	*Non-material benefits obtained from ecosystems* • Spiritual and religious • Recreation and ecotourism • Aesthetic • Inspirational • Educational • Sense of place • Cultural heritage
Supporting Services *Services necessary for the production of all other ecosystem services* • Soil Formation • Nutrient cycling • Primary Production		

Using widely accepted and established natural resource units such as river catchments and landscape character areas enables a spatial or "place-based" perspective for collective decisions about ensuring the continuing supply of **each type of ecosystem service at sub-regional and strategic levels**. Focusing on these established spatial units encourages decision-makers to think about cross-sectoral issues, the

appropriate geographical scales for analysis and the implementation of sustainable management regimes. In this way, the values and priorities of different stakeholder groups can be negotiated in a transparent and open way in decision making where environmental assets of all kinds are involved.

3.3.2 DCLG's proposed PPS for a Natural, Healthy Environment

Although this draft PPS consulted on in the first half of 2010 may well be not be progressed any further by the new coalition government, the key principles and criteria underpinning it reflect much of Defra's Ecosystems Approach. For this reason such principles could usefully be considered for adoption by the 33 local authorities and the statutory agencies for the West Midlands as part of new, shared environmental guidance or a strategic action plan for the West Midlands

- **Draft Policy NE1: Evidence base for plan-making** called for regional and local planning authorities to work together to ensure that they have up-to-date information, at the appropriate scale, about the characteristics of the natural environment in their areas to inform plan-making.

- **Draft Policy NE2:** required a strategic approach for "*addressing regional, sub-regional and cross-boundary issues in relation to biodiversity, geodiversity, landscape and green infrastructure, particularly in areas of growth and renewal where substantial amounts of development will be delivered and in areas which will be most vulnerable to the impacts of climate change*".

  This is exactly what the West Midlands Biodiversity Opportunities Map enables local authorities to do. Using this resource as a shared framework that can be further refined and developed at a more detailed sub-regional, cross boundary level appears to be in direct alignment with views expressed at the stakeholder workshop. Draft Policy NE2 also advised that planning authorities should "*have regard to the relevant objectives of the Regional Forestry Framework to secure trees and woods for future generations*."

- **Draft Policy NE3: Local planning approach for the natural environment** required that:
  - landscapes outside nationally designated landscape areas that are particularly highly valued locally, based on an assessment of landscape character, sensitivity and capacity. The policies should provide sufficient protection for these areas of landscape while not unduly restricting acceptable, sustainable development and economic activity.

- Local planning authorities should rigorously consider the justification for retaining existing local landscape designations, and they should only be maintained or, exceptionally, extended where it can be clearly shown that criteria-based planning policies cannot provide the necessary protection.

- **Draft Policy NE4** called for Local Development Frameworks (LDF's) to set out a strategic approach for the creation, protection and management of networks of green infrastructure, building on work undertaken at the regional and sub-regional level. In particular, it stated that LDF policies should:
  - provide for green infrastructure, particularly in locations where it will assist in reducing the impacts of climate change by providing flood water storage areas, sustainable drainage systems, urban cooling and local access to shady outdoor space;
  - avoid development being located in areas which result in the fragmentation or isolation of natural habitats;
  - identify opportunities to enhance green infrastructure and the natural habitats within it, by retaining, enhancing or creating green corridors linking rural and urban fringe areas and urban green spaces; and
  - identify opportunities to enhance the functions urban green spaces can perform.

Although not explicitly stated, draft policy NE4 is exactly the type of approach that would encourage a more collective way of planning for and managing the environment to ensure that ecosystem services are conserved and enhanced at appropriate spatial scales.

Any strategic environmental guidance for the West Midlands could usefully take these draft policy requirements and shape them to be more explicit about the use of joint-working using shared spatial frameworks such as river catchments and landscape character areas.

3.4 Emerging regional environmental priorities and options

Using the results of the project workshop discussion and the project team's own, independent review carried out in advance of the workshop, we set out below the emerging priorities for the West Midlands

based on the WMRSS Phase Three Revision Policy Recommendations developed through the extensive consultation processes.

i. **Restoring degraded areas and managing and creating new high quality environment**

The West Midlands is generally endowed with good quality natural and historic environmental assets, however there are some areas (particularly some, but not all major urban areas) where the outdoor living environment is of poor quality and historic assets are at risk. Areas with most derelict land proportionally are Stoke on Trent, Walsall and Wolverhampton. In the last two years, however, over 200ha of land has been reclaimed across the West Midlands and around 22% of the derelict land reclaimed was for green space use.

On this basis restoring degraded areas appears to be a regionally specific topic and it seems that guidance, particularly in Major Urban Areas (MUAs[1] as designated) would be helpful.. It is suggested that guidance should promote the use of Brownfield Action Plans developed in response to the specific local needs, circumstances and opportunities of these areas because the contamination characteristics and appropriate remediation measures will be different for each area. The guidance needs to name specific areas/strategic sites in relation to housing policy and economic need as priorities. The supporting text from the WMRSS Policy Recommendation QE2 is very useful for suggesting exactly what the Actions Plans should cover in relation to climate change resilience (including flood risk management), green infrastructure, natural resource use and heritage aspects because it states that brownfield land can play a key role in the transformation and regeneration of the West Midlands and its MUAs. The role of trees and woods in regeneration could usefully include specific reference to the regional Woodlands Opportunity Map, zones and priorities.

ii. **Green infrastructure**

The West Midlands has a diverse range of natural habitats and contains nationally significant proportions of priority habitats (e.g. 20% of England's lowland meadows). However many of the region's habitats are fragmented, disjointed and isolated, both physically and functionally. This

[1] NB: The Major Urban Areas cover Birmingham / Solihull, the Black Country and North Staffordshire conurbation

suggests that there is a strong need for a more collective approach to implementing effective green infrastructure strategies. But whilst important, there does not appear to be need for regional guidance on this topic if effective sub-regional working on a cross boundary basis can be pursued through green infrastructure strategies. On the whole, green infrastructure issues and opportunities could be better addressed as an integral aspect of a higher level biodiversity and/or landscape policy because there are many cross-overs with these wider topics.

Case studies in the regional Green Infrastructure Prospectus are useful as exemplars but there is a need for more evidence in terms of mapping, as to what and where specific measures are needed. The importance of green infrastructure for the supply of ecosystem services could usefully be mentioned in supporting text for any new strategic environmental guidance but not in a free-standing policy. This suggested text could be a statement about recognising the need to map and describe the green infrastructure resource for the region so that the 33 local authorities can work at a sub-regional level to use and determine what aspects of green infrastructure their own local strategy or action plan and local policies need to address.

Instead, we suggest that lifting out some of the key words and phrases from the WMRSS Phase Three Revision Policy Recommendation for an overarching regional 'landscape' policy (see item iv. below) would be far more useful for strategic purposes.

iii. **Protection and enhancement of the historic environment**

The West Midlands has a varied and distinctive historic environment stretching from the rural areas around the Welsh borders across to the east counties, from Worcestershire in the South to Shropshire in the North. This rural cultural heritage is matched by its diversity of urban landscapes including not only its market towns and medieval centres such as Hereford, but also modern New Towns such as Telford. It has a considerable legacy of historic buildings, structures, monuments and landscapes. There have been a number of recent successes in protecting these assets, but some remain at risk of damage and even loss. Valued historic buildings, archaeological remains and historic landscapes across the West Midlands continue to be at risk through neglect, decay, loss of use, and development pressures. These assets are an important cultural resource, often with direct links to nature conservation interest and of considerable potential to be a critical economic asset for the West Midlands.

Furthermore, the West Midlands historic environment clearly has the highest regional level of risk on a national basis from new development and regeneration activity. The full rural and industrial heritage has still not been adequately surveyed and listed, making it difficult to prioritise and manage. This strongly suggests the need for strategic guidance promoting the benefits of maintaining the historic environment to reinforce local distinctiveness and sense of place in order to fully realise the potential value to the economy, i.e. strong links to leisure and tourism and heritage-led economic development. The WMRSS Phase Three Revision Policy Recommendation for the Historic Environment (QE5) describes the "*finite and irreplaceable nature of the West Midlands' historic environment*" and the importance of its undesignated resource. It goes on to advocate taking forward the West Midlands Historic Environment Strategy by "*recognising and promoting the positive social, economic and environmental benefits*" to local distinctiveness and sense of place, to leisure and educational activities, for attracting inward investment and to sustainability in terms of repairing and re-using built heritage assets. These policy aspirations remain very valid and were underpinned by the discussion at the stakeholder workshop. The Policy Recommendation also called for:

> "*a review of the lists of regionally distinctive aspects of the West Midlands historic environment, and the opportunities for enhancement and regeneration, including heritage at risk, in the context of the region's urban and rural renaissance*".

The recently published Action Plan for the West Midland's historic environment aims to meet the objectives set out in the West Midlands historic environment strategy, i.e. through partnership working with local authorities to manage their approach through adequate local policy, especially for those MUAs and Settlements of Significant Development (SSD's) under greatest development pressure. This latest initiative should help to identify ways of closing the gap in the regional evidence base and also gives a specific geographical focus to planned measures. Further guidance should build on and reinforce the new Action Plan.

iv. **Restoration, conservation and enhancement of the region's landscapes** There are five Areas of Outstanding Natural Beauty (AONB) wholly or partly within the West Midlands; these are Cannock Chase, the Cotswolds, the Malvern Hills, Shropshire Hills and the Wye Valley. Currently ten out of twenty-five of the region's National Character Areas, approximately 63% of the region's landscape by area are assessed as 'neglected' or 'diverging', i.e. changing in a way inconsistent

with current character. In particular the eastern and south-eastern National Character Areas have seen changes inconsistent with character, with the western areas remaining largely stable. The north-east of the region has managed to broadly maintain its existing landscape character.

It is worth noting at this point that changes in landscape character are not necessarily a bad thing; change is a constant feature of England's cultural landscapes. The understanding of current character, and how pressures for change are impacting on it, enables local planning authorities to work collectively at a sub-regional level to better manage these pressures for change. In this way planners are able to use joint guidance, local planning policies and design criteria to encourage new development and infrastructure that fits into the landscape as sustainably as possible.

There are many useful spatial frameworks and tools for enabling this to happen but they are mostly voluntary with little statutory basis. If these are used consistently and effectively, they could make a real difference to the planning process. Whilst the workshop discussions resulted in landscape being given low to medium priority in the risk assessment, a landscape-scale, spatial approach to strategic planning would enable local authorities to work across borders more effectively. For this reason it is suggested that local authorities be encouraged to make full use of the results of their Landscape Character Assessments to develop local policies/DPDs which would result in the benefits outlined in the WMRSS Phase Three Revision Policy Recommendations for QE1 (an integrated approach) and QE6 (landscape). Cross-boundary working would be necessary to deliver all of these benefits, for example, naming specific areas such as the MUAs and Metropolitan / Shire counties where cross-boundary working between local planning authorities is essential for a consistent approach to optimise opportunities for improving the sustainable use of land and resources. There would need to be further discussion to scope and agree what these areas and benefits should be.

v. **Biodiversity and geodiversity**

Plants, animals and their habitats have suffered major declines across the West Midlands in recent decades and there are continuing pressures from changing land uses and more indirect factors such as climate change. There was an 18% decline in farmland bird species in the West Midlands between 1994 and 2007 compared to a 13% decrease nationally. There has however been an increase in the number of Sites of Special Scientific Interest (SSSIs) that are in a favourable or recovering condition which in 2009 stood at 84% (compared to 71% of the region's SSSIs in 2007), suggesting that targeted management agreements and measures are taking effect.

Despite the extensive national strategies and EU Directives, however, there still seems to be a need for guidance in the West Midlands that reinforces public bodies' statutory duties. We suggest that the approach outlined in Policy Recommendation QE7 of the WMRSS Phase Three Revision requiring local authorities to:

> "*support and develop **local opportunity maps** and take account of them in the preparation of Local Development Frameworks and green infrastructure strategies*"

should remain a core objective. The statutory duty on all public bodies to ensure that the wider benefits of the natural environment are available to everyone again reinforces the importance of conserving biodiversity and geodiversity to secure the ongoing supply of benefits that their ecosystem services provide, for example, pollination and flood risk management. Guidance could usefully encourage local authorities to halt the continuing decline in the regional resource by encouraging them to produce **local versions** of the regional opportunities map – working together across boundaries where necessary – to result in the development of shared local policies that protect and enhance their resource.

vi. **Woodlands, trees and forestry**

The region's total area of woodland and forestry (of 0.1 hectares or more) is 98,474 hectares. This represents 7.6% of the land area (compared with 8.4% for England as whole). There has been an increase of 1.5% in woodland and forestry cover in the region over the past 20 years, a result of significant new planting of broadleaves through various grant schemes. There are concerns however that the rate of new planting has slowed considerably over the last 10 years, suggesting that Forestry Framework objectives need to be met more actively through renewed, collective efforts.

Woodlands, trees and forestry are a component of green infrastructure for the supply of ecosystem services including carbon sequestration, timber and energy provision, water regulation and flood risk management. They are also a critical, defining element of landscape character, especially for the West Midlands where geomorphology is less a determinant of landscape character than in the North West where the Lake District uplands dominate, or the South West where stretches of rocky coastline and the southern uplands of Exmoor and Dartmoor strongly influence regional landscape character for example.

In view of the high importance of trees and woodlands in the landscape and the considerable national and local level policy provision for them, we suggest that the proposed strategic landscape guidance and biodiversity guidance would enable this topic to be adequately addressed at a strategic level for the West Midlands. These should both emphasize the importance of the sub-regional forestry framework objectives for social and economic benefits, which also need to be reflected in LDF policies and green infrastructure strategies as critical local environment assets.

Contrary to the discussion at the stakeholder workshop, we do not believe that a separate strategic approach is required for forestry and woodland over and above the existing forestry framework, but added emphasis would be possible through a landscape and biodiversity focus on ecosystem services and benefits.

vii. **Water environment**

Rivers within the region are currently below national water quality standards, with 72% of rivers being of a 'good' chemical quality and 60% of a 'good' biological quality compared to 87% and 89% nationally. Water quality has improved but standards still fail to meet conservation requirements of most freshwater species protected under the Habitats Directive (e.g. salmon). Significant pressures on water resources are anticipated in the future, as a result of a predicted increased population and climate change. Low water quality tends to be located in urban areas, particularly the watercourses in Birmingham, the Black Country, Coventry, Solihull and Stoke on Trent.

Water supply and quality is comprehensively covered in a number of national strategy, policy and legislative processes. There will also be a major review of the national policy and regulatory 'landscape' for water, covering all aspects of supply, quality and treatment so there appears to be little need for anything additional at a regional level. Nonetheless, the water related consequences of major new development and integration with the objectives of the two River Basin Management Plans (RBMPs) for the West Midlands requires a strategic approach, not least because a high proportion of the region's supply comes from across the border from Welsh sites and areas important for their nature conservation interest. Co-ordination across local authority and Welsh boundaries, bringing together a long term view of cross-boundary environmental infrastructure needs and environmental impacts, is essential. Joint working across these planning boundaries is the best way of ensuring the protection and enhancement of the water quality and sustainable use of water resources required through RBMPs. Whilst a specific regional policy for water is not

considered to be necessary, LDF policies need to fully reflect the importance of water conservation and related infrastructure issues. We suggest that a sub-regional approach to master planning new development should directly involve all stakeholders to better plan for water supply and waste water treatment.

viii. **Flood risk**.

Approximately 6% of land in the West Midlands is at risk of annual flooding, with more than 94,000 properties located in flood risk areas. Some 83% (78,000) are residential properties whilst the remaining 17% (16,000) are commercial. A total of 34,000 properties are at risk from serious flooding. In relative terms, however, the region does not have a large area of land vulnerable to flooding, and few new houses are being constructed on this land. The incidence of flooding has been increasing in the Region with more frequent wetter periods associated with global warming and this is liable to continue with climate change unless catchment management planning measures are collectively taken as a priority.

As above for water, this topic is well covered at national level and there are no specific areas at high risk in the region that cannot be dealt with through normal planning and catchment management routes at the local level, but we suggest that these need to be dealt with at catchment level rather than taking a more reductionist approach per development site. The close links between flood risk and land management can also be addressed in green infrastructure strategies and the suggested overarching landscape policy for the West Midlands.

ix. **Protection of agricultural land**

Agricultural land quality is traditionally graded from 1 (best) to 5 (worst). Whilst the West Midlands has a higher proportion of Grade 1 land than the rest of England, the distribution between the counties is uneven with higher proportions of this land in Herefordshire and Shropshire, and lower proportions in Staffordshire and Warwickshire.

Agricultural land is very well covered through various Defra initiatives and EU Directives and in national policy measures so a specific regional policy is not needed, although encouragement of agricultural land protection does need to be directly linked between national and local levels. There may also be a specific need to identify particular areas or zones in any new regional landscape or biodiversity guidance where agricultural management regimes are particularly important to local character and nature conservation interest. This is where it would be worth highlighting how

particular regimes of agricultural land management could play an important, beneficial role in the maintenance of key habitats, carbon sequestration and flood risk management, i.e. agricultural land is important for the delivery of a wide range of ecosystem services and benefits in addition to the supply of food and fibre

x. **Air quality**.

Air pollution exceeds recommended air quality standards on a number of days every year in both urban and rural areas across the West Midlands despite most rural parts of the region enjoying very good ambient air quality. As a result, 17 local authorities in the West Midlands have designated Air Quality Management Areas (AQMAs) to combat the severity of this problem in their urban areas. Where a local authority considers that one or more of the air quality objectives is unlikely to be met, it must declare an AQMA covering the part of the area where the problem lies.

For these reasons, air quality is best addressed at national and local levels, although stronger linkages between national and local level policies need to be made. Tackling air quality problems is a local issue linked directly to traffic levels and congestion in the most densely populated urban areas such as the Birmingham and Black Country conurbations in particular, so it is most effectively dealt with through local planning policies and local transport plans. Strategic demand management and infrastructure planning for the region as a whole provides a strategic context for local DPDs.

xi. **Energy efficiency** and **renewable energy targets plus criteria for ensuring that renewable energy is appropriately located.**

The UK Renewable Energy Strategy expects regions to set targets for renewable energy in line with national targets or better where possible. The Regional Energy Strategy published in 2004 set a target for renewable energy for the Region of 5% by 2010, reflecting its low baseline of renewable energy and the potential opportunities. Renewable energy sites in the West Midlands in 2008 included 4 hydro-electric, 28 landfill gas, 37 biofuels/wastes. However, the region currently meets less than 1% of its electricity demand from renewable energy although it generates 6.7% of the total renewable energy generated in England. The West Midlands therefore needs to develop new targets for renewable energy taking into account the opportunities and constraints in each sub-region.

Whilst national energy strategy is rapidly evolving, the importance of delivering energy efficiency locally needs to be strongly emphasised. Because new development constitutes only a very small

proportion of the total building stock the emphasis on energy efficiency in existing development should be a priority although it is recognised that this is difficult to influence through local planning processes and even more difficult to influence at a regional level. It is therefore recommended that the approach from the WMRSS Phase Three Revision Policy Recommendation be adopted, i.e:

"*where opportunities arise, proposals for major developments should be accompanied by an energy use assessment which sets the baseline for the calculation of the proportion of on-site energy generation and describes the measures that are being taken to put the 'Energy Hierarchy' into effect".*

It is also suggested that guidance would be helpful that encouraged the location of large scale renewable energy plant (energy from waste, CHP, solar thermal, wind, biomass) to be determined using landscape character assessments and opportunities maps together with economic feasibility studies to optimise local resource potential as a new **regional energy infrastructure low carbon opportunities map**. Local authorities could take forward the opportunities map in more detail, developing locally responsive policies for low to zero carbon development and location-specific renewable energy infrastructure. This is what appears to be the big knowledge and information gap. It would be necessary to stress the importance of reducing reliance on/use of fossil fuels in relation to climate change mitigation and the development of a low carbon economy. This type of policy also meets the need for "*an integrated approach to the management of environmental resources*".

xii. **Positive use of Green Belt.**

The primary aim of Green Belt policy is to prevent urban sprawl, with the additional benefits of providing open green space for leisure purposes close to urban centres. The current presumption against development can sometimes result in green belt land becoming poorly managed and underused, where developers may discourage more positive uses in the hope that development might eventually be accepted. A more positive approach, encouraging appropriate uses, management and enhancement in alignment with local green infrastructure strategies could provide wider benefits.

Whilst there is no need for a specific regional policy or guidance on green belt land, there could be a reference to green belt as a sub-set of the suggested approach to cross boundary working on landscapes. This could encourage local authorities in specific areas (to be agreed and named)

should look to make best use of the land outside of their urban boundaries for improved accessibility and health benefits and other green infrastructure ecosystem service benefits, referencing these areas in local LDF landscape policy.

xiii. **Safeguarding mineral resources**.

The West Midlands contains mineral deposits which are of national, regional and local significance; these are gypsum, silica sand, limestone for cement, aggregates, natural building and roofing stone, shale, coal, brick clays and fireclays. Aggregates such as sand and gravel, crushed rock and a range of secondary and recycled materials used for construction purposes are the most widely used minerals found within the West Midlands. Hydrocarbons such as coal deposits are also present but these are of less economic importance now than in previous decades.

There seems to be a need for a strategic approach to safeguarding mineral resources but this would require considerable debate about whether national policy should be reinforced and how this could then be taken forward at sub-regional and more local levels, using strategic and local level sustainability appraisal as the most appropriate tool for guiding decision-making. The West Midlands Regional Aggregates Working Party (WMRAWP) is probably the most suitable existing stakeholder forum to take this debate forward.

xiv. **Sub-regional apportionment of aggregates.**

Construction aggregates (sand and gravel and crushed rock) are essential to built development, together with the construction and maintenance of infrastructure (e.g. roads, flood defences). For this reason they are essential for new development with the aim of creating and maintaining sustainable communities.

Across the West Midlands there are geographical imbalances between the supply of, and demand for, aggregates and therefore a mixture of sites is needed to meet regional and local demands. The regional imbalance is highlighted by the relationship between consumption in urban areas and the provision of supplies of primary aggregates from mainly rural areas particularly from Staffordshire for sand and gravel and Shropshire for crushed rock. In March 2010 the West Midlands Regional Assembly supported a new methodology for the apportionment of aggregates so that future provision could be more sustainably planned and delivered. Continued regional guidance or cross boundary collaboration will be required to ensure a balance between the supply of, and demand for, aggregates in the West Midlands.

The sub-regional apportionment could also be directly referenced in the suggested overarching landscape approach, encouraging local authorities to avoid sensitive local landscapes. The use of Landscape Character Area (LCA)-based analyses could be explored to develop the current lack of sub-regional data for helping to determine reliable geographical area-based local apportionments for alternate materials. For example, examining environmental and socio-economic data at LCA level would help to identify where and how minerals could be extracted for least adverse impact, and where alternative materials would be acceptable for development purposes instead of traditional aggregates. This approach could help to guide the debate and offer new insights for sustainable design and construction at the sub-regional level.

xv. **Future Brick Clay provision**.

The principal brick clay resource in West Midlands is the Etruria Formation and the main outcrops occur in Staffordshire and parts of the Black Country. Nationally, the Etruria formation covers only 1% of the total outcrop area of the brick clay resources. Despite the small size of the outcrop it is a very important brick clay resource and is covered by planning permissions over 9% of its area. This resource of premium quality clay is confined to a relatively small and fragmented outcrop which is almost exclusively in an area with a high population density.

There does not seem to be any real rationale for regional guidance on this topic alone and the winning of this mineral resource could be dealt with as part of the approach towards safeguarding mineral resources (see xiii above). Other elements of brick clay provision (manufacturing works and so on) could be included in any guidance for Brownfield Action Plans for specific areas as outlined above.

xvi. **Waste.**

Domestic waste generation levels are high and rising in the West Midlands. The region performs well in terms of waste to landfill, for example around 33% of municipal waste was sent to landfill in 2008-9, compared with 50% nationally. This is largely the result of sub-regions working together very successfully using bi-lateral agreements, demonstrating the effectiveness of this type of collective approach to planning. Some 32% of the West Midland's waste arisings were incinerated via energy from waste compared to only 12% nationally, and 36% was recycled (just below the

national average of 37%). The region's landfill capacity is due to run out in five years so there is increasing urgency to further develop energy from waste capacity and to improve recycling and resource productivity.

Although, seemingly well catered for in national waste guidance, national targets for diversion from landfill and in local planning policy, there continues to be a need for some co-ordination of waste planning at the regional level because of the flows of household, commercial/industrial and construction and demolition waste from the MUAs to landfill in adjacent areas, and the reverse flow of metals, waste electrical and electronic equipment, paper and hazardous waste into the major conurbations. Guidance and collaboration between sub-regions will continue to be required to agree tonnages of different waste streams and help ensure that waste management facilities of the right type, in the right place and at the right time are provided. The Regional Technical Advisory Body for Waste (RTAB) could coordinate the development of this guidance.

xvii. **Energy: fossil fuels**.

There are significant reserves of un-worked coal in the West Midlands along with other hydrocarbon resources. In some areas, previous coal mining has left a legacy of untreated and unrecorded mineshafts, surface methane venting, mine water drainage arrangements and vegetated colliery spoil heaps. As land use changes, this legacy will diminish but the venting of methane and greenhouse gases to the atmosphere contributes to climate change.

The need to prevent land from being adversely affected through the winning of new fossil fuel resources such as coal could be adequately covered in the suggested approaches to regional energy, landscape and biodiversity.

xviii. **Sustainable building design and construction**.

Very few local authorities appear to have made sustainable construction standards mandatory but new regulations and targets for zero carbon development are incoming for 2016 (new housing) and 2019 (all new development including non-domestic).

This topic is very well covered at national level and in new and incoming regulations. The suggested approach for a new regional energy infrastructure opportunities map could usefully encourage local authorities to adopt the existing West Midlands Regional Sustainability Checklist for major new development and major refurbishment projects. This approach could drive real

improvements in the built environment and could give greater certainty to the construction industry.

xix. **Soils.**

Around 1.3% of the West Midlands area is peat (Staffordshire Moorlands, Black Mountains, Shropshire Hills, Cannock Chase, Sutton Park) and 7.8% is woodland soils (Cannock Chase, Shropshire Hills, Wye Valley, Wyre are core areas). These are of high nature conservation and biodiversity interest and should be conserved. In contrast, there are specific areas with notable volumes of contaminated land, for example the Black Country and some of the larger MUAs such as Wolverhampton, Walsall and Stoke on Trent, where soil restoration and regeneration may be a local priority where this would not compromise biodiversity and heritage interests.

Soils as a topic is very well covered in national strategies and policies, together with EU Directives for soil, natural resources and water. Soil management issues could also be addressed within local green infrastructure strategies in terms of providing local ecosystem services and related benefits such as flood risk management and healthy habitats.

The suggested overarching approach to the landscape and biodiversity topics in the West Midlands could address specific soil management issues at the landscape scale for particular areas where his was considered helpful.

4.0 Recommendations for a new West Midlands strategic approach for the environment

4.1 Taking an integrated approach to managing the environment

Following the recent change of government the RTPI issued a press release on 15th June 2010 saying that:

> "It is important that the [new] government realizes that strategic planning did not begin in 1997 but has been a part of our system for more than half a century. It is vital to have a level of strategic planning between councils and national government to ensure cross-boundary co-ordination.
>
> There is a general acceptance that a locally-based system is inevitable and planners must seek to influence its design. The immediate difficulty is the gap between the regional strategies' demise and the invention of their replacement"
>
> *Source: Planning Resource, 15/06/2010*

We strongly agree with many commentators that the evidence base developed for regional strategies remains valid. This evidence needs to be used much more effectively by local authorities and the agencies by working together sub-regionally in partnership across administrative boundaries. It is only by working across boundaries that these agencies can effectively measure, monitor and manage the health and integrity of natural resource units and their supply of ecosystem goods and services upon which the economy and communities in the West Midlands depends. Where local authorities lack the resources to develop their own more detailed versions of these strategic datasets and related processes, such biodiversity opportunity mapping, or locations for specific types of renewable energy crops and installations, they ought to consider pooling resources to develop shared, cross-boundary sub-regional spatial datasets that provide the information they need. This would be a highly cost-efficient and effective way of improving rapidly the strategic planning base.

Effective cross boundary working will help to ensure that environmental priorities for the West Midlands can be effectively and sustainably addressed. Thus, just as major infrastructure projects for highways, rail and housing need strategic planning, so too do environmental assets. Proper strategic planning is required in order to avoid further fragmentation, declines in quality and loss of critical environmental assets essential for health, well-being and prosperity. We recommend that the number of well researched spatial

frameworks and assessment frameworks developed for this purpose *need to be used more consistently and effectively*, as follows.

Table 3; Relationship between existing spatial and assessment frameworks and the West Midlands Environmental Topics

Assessment frameworks	Benefits	Relevance to Environment Topics	Possible issues to overcome
1. Sustainability appraisal (SA)	Complete coverage of all environmental, social and economic concerns to result in integrated solutions, SA is already part of the planning process	All topics can be addressed on an equal basis.	Each local authority has its own assessment framework, making cross-boundary working harder. Sharing a common framework and assessment criteria would make integrated approaches easier. Ideally the Regional Sustainable Development Framework should enable this to happen – it may be timely to review and update this resource.
2. River catchments	These are natural resource units recognised in a number of Defra policy approaches	As above – an SA approach could be used for catchment-scale planning and management.	The value of catchment-scale planning is not yet explicit in CLG planning policy guidance. There is scope for this to be addressed in an overarching landscape policy or new environmental guidance for the West Midlands.
3. Forestry Framework	As above	As above. The importance of woodland and forestry in effective	It would appear from the workshop discussion that sub-regional objectives for trees, woods and forestry are not as well established

		catchment planning and management needs to be better understood and more widely acknowledged by local planners and decision-makers.	and applied as they need to be. This could be an explicit component of the suggested landscape and biodiversity policies for the West Midlands, with an emphasis on the wide range of ecosystem service benefits that the West Midlands' woodland resource provides to communities.
4. Biodiversity opportunities map	Region-wide completed 'consensus' opportunities map resource using high quality data and specialist knowledge	An extremely useful 'base map' resource that can also be used with soil, water and farming data as well as being a development planning tool, this addresses the need to integrate policy and effort across themes and geographies.	Until local authorities produce inter-operable regional opportunities maps, working consistently across administrative boundaries, the full potential of these opportunities map will not be realised.
5. National Landscape Character Areas	Cover both the natural and cultural heritage aspects of the environment	A very effective, spatial framework for addressing and integrating different sectoral policies, especially if an SA approach to decision-making is used.	As above. The original purpose of this hierarchy of spatial units was to encourage cross-boundary working at the sub-regional and strategic levels for managing change in the landscape, i.e. encouraging beneficial changes and reducing or avoiding adverse changes.
6. Regional	Endorsed by central	This is a regionally	Currently, the use of the Checklist is

Sustainability Checklist for Development	government (CLG) and the BRE with strong support from the NGO sector. The results of effective application can be demonstrated.	distinctive form of sustainability appraisal that can be consistently applied in ways tailored to local areas, directly supporting local planning policies. It can also be used whilst local planning policies are under development, i.e. closing a planning gap as the basis for validation criteria.	voluntary and few local planning authorities have made it a mandatory part of their planning process. Recent research by WYG for AWM strongly suggests that if this were done the planning process could be more effective at delivering sustainable areas and neighbourhoods. If tools like the Checklist are not used, or used inconsistently, national policy goals will not be achieved let alone local targets.

Stronger and more consistent cross boundary working, focusing on 'natural resource unit' frameworks such as river catchments and landscape character areas will help to ensure that environmental priorities for the West Midlands can be effectively and sustainably planned for and managed.

4.1.1 Future-proofing environmental asset management

The planning system has a critical role in helping to achieve the national policy goals enshrined in the 2008 Climate Change Act and closely related energy policies and schemes for greenhouse gas (GHG) emissions reduction. Addressing climate change mitigation and adaptation obviously needs to be an integral aspect of environmental asset management, not least because these assets, used sustainably, can help us to better moderate and adapt to climate change impacts. National planning policy statements PPS1 and PPS25 confirm the role of the environment in helping to mitigate climate change impacts and to take an adaptive management approach to living with climate change over the coming decades.

It is important to future-proof not only the West Midlands environmental assets, but also its communities and capacity for wealth generation, opportunities for reducing negative impacts and optimising positive

impacts. There is, therefore, a need to build into and make explicit the use of the appraisal and assessment tools for measuring and managing these assets. In the final section of this report we suggest how this could be done for the proposed environmental priorities described in the set of recommendations below.

4.2 Suggested environmental priorities for the West Midlands

As a result of the review of evidence, the stakeholder discussion and the analyses discussed in Section 3.0 above we recommend that the following topics be considered for taking forward in any new strategic document, plan or guidance for the West Midlands. These suggestions could be regarded as a natural development on from the WMRSS Phase Three Revision Policy Recommendations. Section 4.3 below takes this approach a stage further by suggesting an alternative policy approach.

4.2.1 Energy supply and management

The UK Renewable Energy Strategy expects regions to set targets for renewable energy in line with national targets or better where possible. The Regional Energy Strategy published in 2004 set a target for renewable energy for the Region of 5% by 2010. Currently, however, the region meets less than 1% of its electricity demand from renewable energy. The West Midlands therefore needs to develop new targets for renewable energy taking into account the opportunities and constraints in the sub-regions.

It is recommended that consideration be given to prioritising *energy efficiency*, encouraging local planning processes to seek to manage energy demand in existing building stock as well as in new developments. As an example, local authorities could be encouraged to identify in their LDFs where major refurbishment opportunities would enable retrofitting of energy efficiency measures and renewable energy systems to existing buildings. It is also suggested that the potential location of large scale renewable energy plant (energy from waste, CHP, solar thermal, wind, biomass) could be determined using landscape character assessments and opportunities maps together with heat mapping and economic feasibility studies. Based on this information, a new West Midlands **low carbon and renewable energy infrastructure opportunities map** could be developed for all of the local authorities to take forward in more detailed, locally responsive policies. This is what appears to be the big knowledge and information gap at present. It would be necessary to stress the importance of reducing reliance on/use of fossil fuels in relation to climate change mitigation and the development of a low carbon economy. This type of approach would meet the need for "*an integrated approach to the management of environmental resources*".

4.2.2 Restoring degraded areas and managing and creating new high quality environment

This appears to be a regionally specific topic it is considered that guidance for Major Urban Areas (MUAs) and Settlements of Significant Development (SSD's) in particular promoting the use of **Brownfield Action Plans** or whatever may supersede these would be helpful. The guidance needs to name specific areas and strategic sites in relation to housing policy and economic need as priorities. The guidance should explain or describe exactly what the Actions Plans should cover in relation to climate change resilience (including flood risk management), green infrastructure, natural resource use and heritage aspects. The role of trees and woods in regeneration could usefully refer to sub-regional Forestry Framework objectives and include specific reference to the regional Woodlands Opportunity Map, zones and priorities.

4.2.3 Protection and enhancement of the historic environment

The West Midlands has a considerable legacy of historic buildings, structures, monuments and landscapes. These assets are an important cultural resource, often with direct links to nature conservation interest and of considerable potential to be a critical economic asset for the West Midlands. However, the West Midlands historic environment has the highest regional level of risk on a national basis from new development and regeneration activity.

This suggests a need for regional guidance and greater collaborative working between local authorities to promote the benefits of maintaining the historic environment to reinforce local distinctiveness and sense of place in order to realise the potential value to the economy i.e. strong links to leisure and tourism and heritage-led economic development. Guidance could emphasise the importance of the region's undesignated resource, the importance of implementing the West Midlands' Heritage Strategy and identify which specific, regionally distinctive heritage assets need to be conserved, how and by whom.

4.2.4 Restoration, conservation and enhancement of the region's current and future landscapes

There are many useful spatial frameworks and tools for enabling a landscape approach at the landscape-scale to enhancing and conserving environmental and socio-economic assets and patterns of use, but they are mostly voluntary with little statutory basis. If used consistently and effectively, they could make a real difference to the planning process. For this reason regional guidance could help guide each of the 33 local authorities to implement and use the results of their Landscape Character Assessments to develop local policies and DPDs that result in the benefits of taking a truly integrated approach to planning.

It is suggested that cross-boundary working between local authorities be encouraged to deliver named benefits for specific areas and sub-regions. Guidance could outline what actions are necessary for optimising land management measures for climate change adaptation, focusing on characteristic landscape elements and features, e.g. such as woodland trees and forestry using the sub-regional Forestry Opportunities maps, and agricultural regimes to protect soils, their carbon sequestration and flood risk management capabilities and so on. It could also make reference to the new approach for the sub-regional apportionment of aggregates and the safeguarding of valued mineral resources (see 4.2.6 below).

This guidance would need to name specific areas such as the MUAs where cross-boundary working is essential for a consistent approach to infrastructure planning. There would need to be further discussion to scope and agree what these areas and benefits should be.

A West Midlands-wide approach to landscape enhancement and strategic management could also usefully refer to the role of Green Infrastructure Strategies, Green Belt policies and Brownfield Action Plans.

4.2.5 Biodiversity and geodiversity

We recommend that consideration be given to developing guidance in the West Midlands and a programme of action that reinforces the statutory duties of public bodies for the environment and biodiversity across the region. This could encourage each local authority, preferably at county and unitary level, but on a collective sub-regional basis for cross-boundary and cost reasons, to develop their own **local opportunities maps** and use these in producing robust, climate-change proofed LDF policies. These policies ought to not only address the importance of conservation and management of biodiversity for its own sake, but also optimise the role that specific habitats and species assemblages can play in the provision of ecosystem goods and services such as pollination (supporting bee populations for the benefit of people and the economy), flood risk management and the supply of high quality water and healthy soils. There are very strong relationships between biodiversity quality and soils and we suggest that this guidance should highlight these links.

Again, the role of the Forestry framework and Green Infrastructure Strategies as tools for biodiversity enhancement could be reinforced in the guidance.

Regional guidance that strongly links biodiversity with geodiversity could usefully exhort local authorities to halt the continuing decline in the regional resource by using their local opportunities map to protect and enhance these resources, identifying sub-regions and areas from the strategic opportunities maps that have specific management needs for meeting national policy goals.

4.2.6 Sustainable waste management: increasing resource productivity

Although, seemingly well catered for in national waste guidance, national targets for diversion from landfill and in local planning policy, there continues to be a need for some co-ordination of waste planning at the regional level because of the flows of household, commercial/industrial and construction and demolition waste from the MUAs to landfill in adjacent areas, and the reverse flow of metals, waste electrical and electronic equipment, paper and hazardous waste into the major conurbations. Guidance and collaboration between sub-regions will continue to be required to agree tonnages of different waste streams and help ensure that waste management facilities of the right type, in the right place and at the right time are provided. The Regional Technical Advisory Body for Waste (RTAB) could coordinate the development of this guidance.

4.2.7 Apportionment of aggregates within the West Midlands

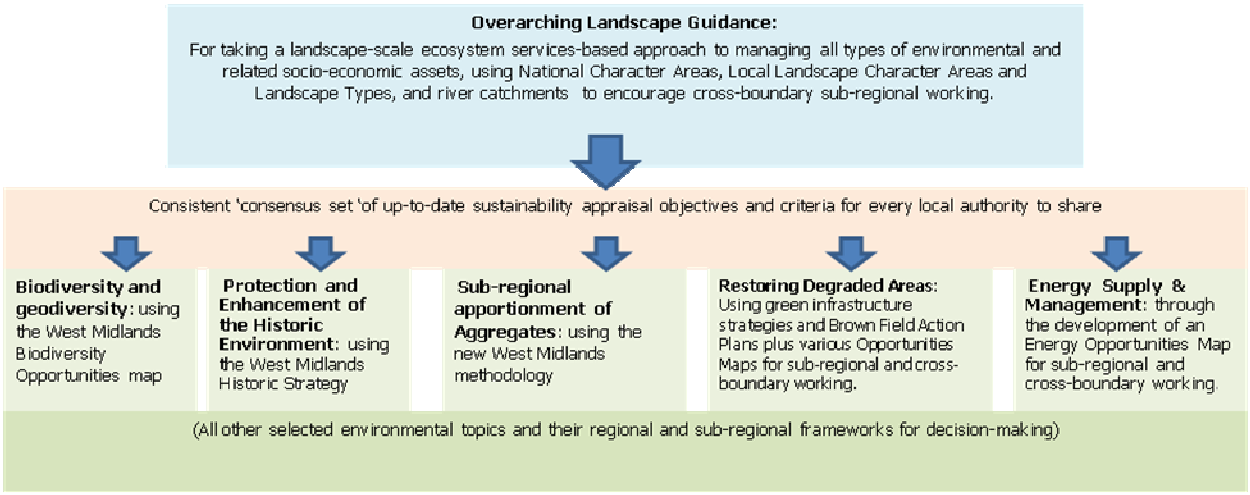
In March 2010 the West Midlands Regional Assembly supported a new methodology for the apportionment of aggregates so that future provision could be more sustainably planned and delivered. Continued regional guidance or cross boundary collaboration will be required to ensure a balance between the supply of, and demand for, aggregates in the West Midlands.

The winning of new building materials threatens biodiversity, landscape character, agricultural production, soils and water quality. We recommend that regional guidance on more sustainable approaches to aggregates use could focus on the importance of a consistent, collective approach to sustainable construction, using the West Midlands Sustainability Checklist as an ideal planning tool as well as the recently developed methodology for more sustainable aggregates apportionment. The Checklist could be helpfully used for all new development in the region in ways that help local planners to streamline the planning process. The increased use of secondary, recycled and substitute materials could also be emphasized through the use of sub-regional and local design guides for architects and developers.

4.3 Taking a more radical approach to environmental priorities for the West Midlands

An alternative approach to that set out in section 4.2 would be to take a wholly ecosystem services-based approach to the supply and delivery of environmental and related socio-economic benefits for the West Midlands. This would comprise the same suite of topics developed for the WMRSS Phase Three Revision and the same prioritised topics described in section 4.2. The main difference would be to set these within a hierarchy as shown below.

Figure 1: Potential topic hierarchy



This alternative approach directly illustrates the importance of the environment in sustainability terms because without a healthy and functioning environment, society and the economy will not prosper, i.e. we need to live within environmental limits. The traditional model of sustainability being concerned with equal weight given to social, environmental and economic aspects is considered outdated and there is increasing understanding of the need to ensure environmental integrity. Short-term economic gains can severely compromise ecosystem function and services that are ultimately much costlier to resolve. For example, global warming and climate change impacts are the most high profile and well-researched consequence of this failure to live sustainability within environmental systems. The Stern Review (2006) makes clear that business as usual is not an option and that better, more integrated decision-making to fully cost the full impacts of economic development is needed to determine the most cost-effective long term solutions to climate change:

"The earlier effective action is taken, the less costly it will be."

Source: STERN REVIEW: The Economics of Climate Change, 2006

This is why life cycle analysis and whole life costing are increasingly being used by government to assess the impacts of new policies and policy interventions.

This alternative policy approach also emphasizes the need for a collective landscape-scale approach using landscape and river catchment units as the shared spatial framework for cross-boundary strategic and sub-regional working. In doing so it supports the development of local approaches but through collaboration, encourages leverage of working at sub-regional and more strategic scales to integrate standards, opportunities and to effectively and consistently tackle cross-border issues. This option strongly promotes a more bottom-up approach of the sort being discussed by the new coalition government, for implementing national policy goals tempered by local needs.

Possible changes to this suggested model would be to make the blue landscape layer a "natural, social and built infrastructure layer" for the West Midlands, i.e. a super and expanded 'green infrastructure approach' that has the middle green level in the diagram above as a set of equally important strands within it (as they currently are). These would each require the development of topic-specific resource policy/opportunity maps at a local level for bio/geodiversity, historic environment, aggregates, restoration of degraded areas and energy supply/management/efficiency.

An obvious downside to taking this alternative approach is the amount of time and resources necessary to first agree it and resource it before it can be used consistently across the West Midlands. This would not however, prevent local authorities working in sub-regional groups to further develop and pilot these ideas.

Appendices

Appendix A – Document and data registers

RA 107 West Midlands Strategy - Environmental Issues - Data Register **(WYG Project Reference: A063444)**

Dataset title	Owner	Contact name/email	Contact Telephone	Date of issue	Format	Resolution	Define/describe/target identifiable areas?
SORU Environment and Natural Resourc	West Midlands Regional	Stephen Howarth / steph	0121 202 3258	06/11/2009	electronic		
SORU Transport	West Midlands Regional	Stephen Howarth / steph	0121 202 3258	06/11/2009	electronic		
SRU Quality of Life	West Midlands Regional	Stephen Howarth / steph	0121 202 3258	06/11/2009	electronic		

RA 107 West Midlands Strategy - Environmental Issues - Documents Register **(WYG Project Reference A063444)**

Document title	Author	Contact name/email	Contact Telephone	Status / Version / Date of issue	Summary of main objectives, scope (inc pros and cons), issues covered, priorities identified	Geographical scale	Format
Background Docs: Content of Regional Strategies							
Policy Statement on Regional Strategies	Communities and Local Government / Department for Business Innovation and Skills	product@communities.gsi.gov.uk	0303 444 0000	Feb-10	Sets out the Government's policy framework for the preparation of Regional Strategies. It is expected that policies would only be included in regional strategies if there is a genuine and distinctive regional and sub regional dimension to them. This means not repeating national policy or legislation. It also means focusing on genuine regional or sub regional issues and leaving locally specific policy to local development frameworks. The Government has named the three priorities for new regional strategies as the economy, housing and climate change. The focus is to produce a concise and succinct document supported by robust evidence base. Each strategy is expected to have a strong spatial dimension articulated through policies, diagrams, maps and tables. The Regional Strategies will be planned for 15-20 year timeframes. Included within the named content will be "priorities for the protection, enhancement and access to the built and natural environment including biodiversity".	National	electronic
Local Democracy, Economic Development and Construction Bill: Policy Document on Regional Strategies	Communities and Local Government / Department for Business Enterprise and Regulatory Reform			Jan-09	Sets out purpose of regional strategies- focus is primarily on the process of preparing a regional strategy rather then its content. Regional strategies expected to include: -Overview of the **key regional and sub-regional opportunities and challenges** over the plan period- derived from analysis of a robust common evidence base, informed and shaped by regional and local partners. This will allow **a high quality assessment of the economic, environmental, social and spatial characteristics and needs of the region.** -How region will meet its housing need and achieve a wide choice of high quality homes to create **sustainable, inclusive mixed communities**. Each region setting out the overall level of housing provision for the region and the broad strategic locations for new housing developments, addressing need and demand in a **way that reflects sustainable development principles.** -Policies that contribute to **climate change mitigation** and help meet the Government's greenhouse gas targets and budgets, as well as its objectives on adapting to the impacts of climate change. The regional strategies should help deliver the Government's ambitions for a **low-carbon economy** by including policies with direct influence on **energy supply and use and greenhouse gas emissions,** for example, by securing the fullest possible use of sustainable transport, and by bringing together and encouraging action across the region. The aim should be to secure low carbon new development and **shape places that minimise vulnerability, and provide long-term resilience, to climate change**, and in ways that are consistent with social cohesion and inclusion. -Areas or communities with significant problems such as deprivation, worklessness, inequalities and social exclusion and **identify the main social, economic and environmental factors** which underlie these issues and identify opportunities to drive change. -How plans for growth, housing and other development have had regard to **available infrastructure.** For example, transport, where the region should consider the **possible impacts of its proposals on congestion and carbon emissions. Other infrastructure needs include: waste, water,**	National	electronic
RS2010: Regional Strategy for England's North West	NWDA / 4NW		NWDA: (0)1925 400 100 4NW: (0)1942 737928	Jan-10	Section A details context for the strategy and builds upon the Principles and Issues Paper - using evidence base to identify key issues, challenges and opportunities. There is a definite focus on assets and opportunities, rather than risks / problems and each environmental type issue identified is linked to social/economic benefits. The section ends with an identification of key outcomes, including: 'developing a low carbon economy, promoting the use of resources and minimising and adapting to the impact of climate change' and 'protecting, enhancing and developing the quality of the Northwest's outstanding environemntal, natural and coastal landscape assets'. Under each outcome are indicators, which provide more insight on the environmental issues considered important. Section B, the strategy, comprises four strands: capitalise on the opportunities of moving to a low-carbon economy and address climate change (overall context); build on our sources of internation competitive advantage and regional distinctiveness; release the potential of our people and tackle poverty; and ensure the right housing and infrastructure for sustainable growth. Under each strand, the strategy identifies possible areas for focusing action. Section C odentifies a spatial element to the strategy, and Section D considers four strategic options which are being considered at this stage. The final strategic framework of RS2010 may be a combination of different elements of one or more options.	Regional	electronic
South East Strategy: Think Pieces	South East England Partnership Board	Simon Worsfold	01483 555200	Feb-10	South East England are currently gathering evidence to feed into the development of the Strategy. They have prepared a number of discussion papers or 'think pieces' looking at the issues most important to the UK's success over the next 20 years: Economic growth and technological innovation; Climate change and a low carbon society; Funding for infrastructure and investment; Tackling housing affordability; Demographic change and an ageing population; and Dealing with economic disadvantage. Environmental issues are mainly tacked within the climate change and a low carbon society think piece, though they are touched on in others.	Regional	electronic
Sustainability Appraisal of The South East Regional Strategy Scoping Report	South East England Partnership Board	info@se-partnershipboard.org.uk	1483555200	Jan-10	Sets out a topic paper approach to SA, including 1 topic paper on Environment. This addresses biodiversity, landscape and heritage; flooding and water management; carbon emissions and renewable energy; and waste and minerals. The topic paper identifies the baseline and trends, projections and forecasts and details the current policy context. It then details the key issues to be addressed by the regional strategy under the above topics, plus climate change and ecological footprint.	Regional	electronic
Current and emerging policy documents in the West Midlands							
RSS Phase 3 Revision Policy Recommendations	WMRA	David Clarke	0121 678 1023		Sets out policy recommendations covering a number of areas, including: -Integrated Approach to the Management of Environmental Resources- designed as an over-arching policy- seeks to reflect the interrelationships between environmental assets by ensuring that all assets are conserved and enhanced together, rather than individually. -Restoring Degraded Areas and Managing and Creating High Quality New Environments- brownfield/derelict land detracts from the quality of the region's environment (esp major urban areas) - difficult to attract people and economic investment to these areas. Land presents opportunities to enhance the quality of the environment and meet social and economic needs but there are concerns that developers will target easier to develop greenfield sites in preference to brownfield/derelict land in urban areas undermining regeneration. -Green Infrastructure- there has been some progress in planning for green infrastructure, especially in some Growth Points, but principles need to be adopted more widely. -Protection and Enhancement of the Historic Environment- valued historic buildings, archaeological remains and historic landscapes across the West Midlands continue to be at risk through neglect, decay, loss of use, and development pressures- Heritage at Risk Register (2009) shows that the West Midlands is above thenational average for listed buildings (Grade I & II*), scheduled monuments, and registered parks and gardens at risk. Positive opportunities for growth and regeneration, leisure and tourism, and education and social cohesion, and is also vital to the valued and distinctive character and identity of the region. Potential that resource may come under further pressure, particularly in areas identified for significant housing growth or comprehensiveregeneration. -Conservation, Enhancement and Restoration of the Region's Landscape- 5 AONBs wholly or partly within the region – Cannock Chase, Cotswolds, Malvern Hills, Shropshire Hills, and the Wye Valley. Currently 10 out of 25 of the region's National Character Areas are assessed as 'neglected' or 'diverging' (changing in a way inconsistent with character). -Protecting, Managing and Enhancing the Region's Biodiversity and Geodiversity- refers to the Regional Biodiversity Strategy which identifies the challenges presented by declining species, changing land uses and the impact of climate change. -Trees, Woods and Forestry- trees and woodlands- in particular ancient and native woodlands and veteran trees, are a fundamental component of the Region's countryside and greenspaces. Refers to the West Midlands Regional Forestry Framework. -Protection of Agricultural Land- just refers to PPS7 -Air Quality- identifies limited scope for regional air quality policy. Transport is a major contributor to poor air quality in the region. -Energy Efficiency- refers to West Midlands Regional Energy Strategy -Renewable Energy- West Midlands currently meets less than 1% of the region's electricity demand from renewable energy. Refers to Regional Energy Strategy -Criteria for Ensuring that Renewable Energy Is Appropriately Located- just refers to PPS22 - Positive uses of the green belt- refers to PPG2 and states that the presumption against development can result in Green Belt becoming poorly managed and underused, where developers may discourage more positive uses in the hope that development might be accepted. A more positive approach, encouraging appropriate uses, management and enhancement would provide wider benefits. -Safeguarding Mineral Resources in the West Midlands- West Midlands contains mineral deposits which are of national, regional and local significance, and these are gypsum, silica sand, limestone for cement, **aggregates**, **natural building and roofing stone**, shale, coal, **brick clays, fireclays** and **hydrocarbons** (most important in bold). -Future Brick Clay Provision- Principal brick clay resource in West Midlands is the Etruria Formation, main outcrops in Staffordshire and parts of the Black Country. Largest users of clay are the brick industry reflecting the concentration of working in and around the conurbation and Stoke on Trent. Fireclays are important premium quality clays which are used in relatively high value buff brick products manufactured at sites across the Midlands	Regional	electronic

RA 107 West Midlands Strategy - Environmental Issues - Documents Register **(WYG Project Reference A063444)**

Document title	Author	Contact name/email	Contact Telephone	Status / Version / Date of issue	Summary of main objectives, scope (inc pros and cons), issues covered, priorities identified	Geographical scale	Format
West Midlands RSS Phase 3 Sustainability Appraisal	URSUS / WMRA	Stephen Owen		Mar-10	SA of RSS Phase 3 policy recommendations. Key environmental issues identified: The West Midlands has some of the most heavily urbanised areas in the country, and also some of the most remote and tranquil countryside. Environmental assets are at risk in specific locations within the Region. Between 1999 and 2003, Joint Character Areas in the eastern (and particularly the south-eastern) side of the Region have changed, much of it in a way that is inconsistent with the existing character whilst the western side is largely stable. Areas in the northeast of the region (largely consistent with the Peak District National Park) have broadly maintained their landscape character in a way consistent with the vision. The Region has a higher proportion of Grade I and II* Listed Buildings and SAMs at risk than elsewhere. A third of the buildings are in immediate risk of further rapid deterioration or loss of fabric compared to a fifth nationally. The total cost of repair, and, where appropriate, conversion of these buildings to their optimum viable use is estimated to be £61.8 million. Bird species provide a good indication of the state of wildlife in the countryside, and on this measure the West Midlands is doing better than England as a whole. More species of both woodland and farmland birds are increasing than decreasing, although overall populations have declined somewhat since 1994. There has been a 25% fall in the amount of derelict land in the region since 2001. In the last two years, over 200ha of land has been reclaimed. Rural parts of the region enjoy very good ambient air quality. The whole of Birmingham and Wolverhampton, nd much of the M6 corridor, has been declared an AQMA. Low water quality tends to be located in urban areas, particularly the watercourses in Birmingham, Solihull, Stoke on Trent, Coventry, and the Black Country. Households in the West Midlands emitted 12.4m tonnes of CO2 equivalent in 2004, 2.34 tonnes per household, compared to 2.45 tonnes for England as a whole. In relative terms the region does not have a large area of land vulnerable to flooding, and few new houses are being constructed on this land. However, the incidence of flooding has been increasing in the Region with more frequent wetter periods associated with global warming. This is exacerbated by the use of drainage systems that are designed to discharge surface water into watercourses more quickly. Aggregate production continues to take place in vulnerable environments. 14% of crushed rock was extracted from sites within AONBs and 38% was from SSSIs, while 44% of sand and gravel was from sites in the green belt. The increase in single-person households, long-run changes in the structure of the population, and increasing affluence (and demand for water using appliances) will cause increased water demand per person. Domestic waste generation levels are high and rising. The region's landfill capacity is due to run out in five years' time.	Regional	electronic
West Midlands RSS Annual Monitoring Report 2009	WMRA	Paul Bayliss	0121 245 0200	Feb-10	Regional data- Quality of the Environment section includes the following key messages: -Restoring Degraded Areas and Managing and Creating High Quality New Environments: includes local authority figures for derelict land- Areas with most derelict land proportionally are Stoke on Trent, Walsall and Wolverhampton. Shropshire has the most derelict land in total area. The latest reduction means there has been a 33% fall in the stock of derelict land since 2001, and a 23% reduction since 2006. In the last two years, over 200ha of land has been reclaimed. 22% of the derelict land reclaimed was for green space use. -Forestry and Woodlands: The area of planting increased marginally in 2008/09, but remains well below the levels in the first half of the decade. -Development and Flood Risk- The incidence of flooding has been increasing in the Region with more frequent wetter periods, potentially associated with climate change. This is exacerbated by the inadequacy of drainage systems that are designed to deal with less intense rainfall events. Around 94,000 properties (3.9% of the total) were assessed as at risk of flooding in 2006, with 34,000 (1.4%) at significant risk and 27,000 (1.1%) at moderate risk. About 80% of the properties are residential. -Protection and Enhancement of the Historic Environment- The number of buildings and structures that are at risk declined in 2008/09, continuing the progress from last year, and reversing the gradual increase in the number and overall proportion since 2001. Twelve buildings were removed from the register, but only seven new buildings at risk were added. -Protecting, Managing and Enhancing the Region's Biodiversity and Nature Conservation Resources- The figures show a significant increase in the area of SSSIs in favourable or recovering condition, from 71% in 2007 to 84% in 2009. This represents a major achievement for Natural England and its partners over the 2 year period. All parts of the Region showed improvement, with Herefordshire continuing to have the lowest proportion. -Energy Generation- The Regional Energy Strategy published in 2004 sets a more modest target for renewable energy for the Region of 5%, reflecting its low baseline of renewable energy and the potential opportunities. -Minerals – 4.29 million tonnes secondary and recycled materials sold as aggregates in 2003. This figure remains below the 5.5 million tonnes per year of alternative materials assumed by the Guidelines, and suggests a continued need to encourage the supply of alternative materials, especially in the Major Urban Areas where opportunities are likely to be greatest. -Waste Management- West mids produced just under 2.9 million tonnes of municipal waste in 2008/09. Increases between 1989 and 2003 have been offset by reductions in 4 of the last 5 years, the largest reduction being the 3.9% fall between 2007/08 and 2008/09. Region has the lowest reliance on landfill of all England's regions, largely as a result of the considerable capacity for incineration with energy recovery in the major urban areas. In 2008/09, all but five of the West Midlands' local authorities bettered their 2007/08 recycling/ composting levels, reflecting the continuing investment in kerbside collection schemes. Highest rates were in the shire areas. 16 local authorities achieved rates over 40%, 11 exceeded 45%, and 5 achieved 50% or more. Defra reports59 that in 2008/09, Staffordshire Moorlands was the top performing recycling authority in England, and South Shropshire was also one of the top ten recyclers. Warwick and Stafford were amongst the 'top ten' improving recycling authorities in England.	Regional	electronic
West Midlands Regional Spatial Strategy Phase Three Revision Options Consultation 29th June – 14th August 2009	WMRA			Jun-09	Sets out issues and options to be addressed in phase three revisions to WMRSS: looking at critical rural services, culture/recreational provision, various regionally significant environmental issues and the provision of a framework for Gypsy and Traveller sites.	Regional	electronic
West Midlands Regional Spatial Strategy Phase Two Revision EIP Panel Report Sept 2009	Independent Panel			Sep-09	Recommendations and findings of independent panel to the Phase Two revisions to the WMRSS	Regional	electronic
West Midlands Regional Spatial Strategy Phase Two Revision – Waste Background Paper Jan 2007	WMRA			Jan-07	Outline and ensure that the priorities of the regional waste strategy are fully considered during development of spatial policy as part of Phase Two of the Revision of the West Midlands Regional Spatial Strategy	Regional	electronic
RSS for West Midlands	ODPM/CLG			Jan-08	Determines scale and distribution of housing and economic development across the Region, investment priorities for transport and sets out policies for enhancing the environment. Includes a regional policy section on Quality of the Environment which covered environmental, energy, minerals and waste policies.	Regional	electronic
Green infrastructure: A Prospectus for the West Midlands Region	TEP, Alison Millward Associates, WMRA	tep@tep.uk.com alison.millward@talk21.com	TEP= 01925 844004 Alison Millward= 0121 4499181 WMRA = 0121 2450201	Undated	Identifies current issues and benefits of green infrastructure in region, case studies of good practice within the West Mids and future objectives to be taken forward. Also identifies where we need to build up green infrastructure i.e. major urban areas, renewal areas, countryside in and around towns, existing and proposed transport infrastructure, biodiversity enhancement areas and key natural and cultural assets. Key issues identified include: fragmented, disjointed and isolated habitats. Opportunities to mitigate effects of climate change through green infrastructure.	Regional	hard copy
Putting the historic environment to work: A strategy for the West Midlands 2010-2015 and Action Plan 201-2011	Atkins / West Midlands Historic Environment Forum	Tim Johnston, English Heritage	?	Undated	Sets out vision for historic environment in the region. Includes a summary of the specific places and special qualities of the region which are important in terms of historic assets, some case studies of good practice and a separate action plan which identifies specific objectives, tasks to be undertaken and responsibilities for this. Key issues identified include: Loss of industrial heritage through regeneration (e.g. in Stoke on Trent) and degradation of historic places of worship due to declining congregation numbers.	Regional	hard copy
State of the natural environment in the West Midlands	Natural England	?	?	2009	Identifies key issues for the West Midlands in relation to landscapes; geology; biodiversity; water environment; climate change; planning; land use and sustainable development; and health and well-being	Regional	hard copy
Water resources strategy regional action plan for Midlands Region	Environment Agency	enquiries@environment-agency.gov.uk	8708506506	Dec-09	Identifies current and future pressures on water resources in the Midlands relating to water resources and sets out a number of Regional priorities and actions to be progressed at Regional level. Key issues identified include: low flows and risk of drought, Polluted surface waters and aquifers, habitat and ecosystem degradation, pressures as a result of climate change.	Regional- covers entire Midlands (West and East)	hard copy
West Midlands Regional Climate change Action Plan	GOWM			Dec-07	Plan of action to address causes and impacts of climate change. Concerned with action that is regional in scale and regionally appropriate. Priorities for action are: planning and environment; economy; implementation; leadership, communication; and targets and monitoring.	Regional	hard copy

RA 107 West Midlands Strategy - Environmental Issues - Documents Register **(WYG Project Reference A063444)**

Document title	Author	Contact name/email	Contact Telephone	Status / Version / Date of issue	Summary of main objectives, scope (inc pros and cons), issues covered, priorities identified	Geographical scale	Format
Sub-Regional Apportionment of Aggregates Provision in the West Midlands Region 2005 – 2020 Final Report	WMRA / Land Use Consultants	luc@landuse.co.uk	020 7383 5784	Mar-10	Concerned with apportionment of primary aggregates within the West Midlands region. Sets out the proposed alternative sub-regional apportionment methodology and a quantification of the primary resources apportioned to each sub region resulting from the methodology under a range of different scenarios (termed 'options'). Issues taken into consideration include: demand (for construction materials), past sales, unsterilised resource, and constraints (e.g. nature conservation and heritage designations.	Regional	electronic
Sustainability Appraisal of the Sub-Regional Minerals Apportionment Options	WMRA / URSUS	Steve Owen	7720416356	Mar-10	Sustainability Appraisal of the above options. Identifies key sustainability issues for the region relevant to minerals, including: -Transport- trends suggest patterns moving away from the goal of sustainable transport-increased car ownership, worsening congestion and declining use of public transport. CO2 emissions from transport are increasing, air quality is adversely affected and congestion costs region around £2.5 billion every year. -Climate change- West Mids will continue to get warmer with wetter winters and drier summers, soil moisture will decrease and occurance of extreme climate events will also increase -Flood risk- aproximately 14% of land in West Mids is fluvial floodplain, more than 94000 properties are located in flood risk areas and approximaetly 18000 people live in areas at risk of flooding. Incidence of flooding is increasing with mroe frequent wetter periods, which may be associated with climate change -Biodiversity- the region's plants and animals have suffered major declines in recent decades and there are continuing pressures from changing land uses and more indirect factors such as climate change -Environmental Quality- the region is generally endowed with good quality natural and historic environmental assets, however there are some areas (particularly major urban areas) where the outdoor living environment is of poor quality and historic assets are at risk. In some parts of the region environmental quality, landscape and the historic environment are coming under increasing pressure from development, leading to change inconsistent with character. -Minerals- population of West Mids forecast to increase significantly- will create additional demand for minerals and competition for land. The location of many mineral resources coincides with environmental and nature conservation designations. Main conclusions: preferred option for aggregate will result in positive impacts in terms of transport and local sourcing of materials, but may have both positive and negative effects in relation to environemntal assets and biodiversity.	Regional	electronic
West Midlands Natural Environment Priorities	DAG			Mar-10	Identifies 3 priorities for natural environment in the West Midlands: significantly improve worst environments; enhance and improve environmental infrastructure in key locations; reconnect landscapes.	Regional	hard copy
West Midlands Regional Energy Strategy				Nov-04	Suggests that there are no broad areas that should be identified as major locations for renewable energy development within the West Midlands, as opposed to any other. Whilst some areas of the region have greater renewable energy resources than others, it seems likely that development will take place in a distributed manner across the West Midlands. It is within the non-designated rural areas of the region that the pressure for larger scale development of renewable energy is most likely to occur, subject to site specific constraints. The highest wind energy resource exists within Staffordshire, Shropshire and Herefordshire although there are increasing opportunities in the rest of the region, as economically viable wind speeds reduce over time. There are opportunities for biomass, anaerobic and aerobic digestion in most parts of the region, although development should be located as close as possible to fuel sources to minimise carbon emissions from transport.	Regional	hard copy
Restoring the Regions Wildlife (WMBP) 2005	WMBP/WMRA	enquiries@wmbp.org	0121 454 8018	2005	Aims to focus attention on the most important priorities for biodiversity in the Region, set out in five key challenges ~ Maintaining and improving the condition of habitats, species and ecosystems ~ Developing an area based approach to restoring wildlife ~ Monitoring the condition of habitats, species and ecosystems ~ Re-connecting and integrating action for biodiversity with other environmental, social and economic activity ~ Coping with the impacts of climate change Major features in West Midlands include: wetlands (including extensive canal system) species-rich grasslands an unusual type of heathland (transitional in character between lowland and upland heathland), woodland habitats and wood pasture. Towns and cities also provide habitat for wildlife, including gardens, allotments and other green spaces. The Region contains: ~ 17 sites of international importance (one Ramsar site, one Special Protection Area and 15 Special Areas of Conservation) ~ 439 Sites of Special Scientific Interest (of national importance) of which 14 are also National Nature Reserves ~ 60 Local Nature Reserves ~ all or part of five Areas of Outstanding Natural Beauty ~ part of the Peak District National Park	Regional	electronic
Water for Life and Livelihoods – River Basin Management Plan Severn River Basin District Dec 2009	EA			Dec-09	Sets out proposed process and timetable for development of the river basin management plan. Covers Severn River Basin District- inlcudes part of West Midlands (to the west and south of Birmingham). Land use in the basin is predominantly agricultural, being home to extensive beef, sheep and dairy production. Large conifer plantations are a feature of the uplands and the Vale of Evesham in Worcestershire is home to a number of specialised horticultural units. The Severn Estuary and its surrounding area are afforded a very high level of protection under European wildlife law. Large areas of it are designated as a Special Protection Area under the Birds Directive and are also proposed as a Special Area of Conservation under the Habitats Directive for their intertidal and subtidal habitats and migratory fish species. The area surrounding the estuary is also designated as a wetland of international importance under the Ramsar convention and as a Site of Special Scientific Interest. The district's rivers provide a diverse range of habitats for wildlife. For example, otters are numerous in the Upper Severn catchment and lamprey, salmon, Allis and Twaite Shad spawn in the mid Severn. Pearl Mussels are present in the River Clun. Floating Water Plantain and Grass-rack pond weed occur in the Montgomery canal which crosses the basin, and Ranunculus is a feature of the Wye and Usk catchments. The lower catchment is important for elvers. Several UK Biodiversity Action Plan species are present including depressed river mussel, river shingle beetles and craneflies	River catchment	electronic
Growing our Future October – The West Midlands Regional Forestry Framework 2004	WM Forestry commission			Oct-04	The vision for woodland and forestry in the West Midlands is to create a viable and inclusive woodland and forestry sector that maximises sustainable development through delivery of economic, environmental, cultural and social benefits to the people of the region	Regional	electronic
Analysis of the Responses to the West Midlands RSS Phase Three Revision Options – Consultation Document (URSUS Consulting) Nov 2009	Ursus			Nov-09	Summary of responses to RSS phase 3 revision options consultation.	Regional	electronic
Managing Flood Risk - River Severn Catchment Flood Management Plan	EA			Dec-09	Sets out the Severn Tidal Tributaries Catchement flood management plan (to the south of the West Midlands).	River catchment	electronic
West Midlands Regional Spatial Strategy Phase Two Revision – Draft Preferred option December 2007	WMRA/NLP			Dec-07			
Environment Agency Statement of the Environment Report 2001	EA				key facts and figures about the state of the environment		

Appendix B – Workshop format & feedback report

WYG Environment
part of the WYG group

WMLB/AWM

Environmental priorities review

28th May Stakeholder Workshop Report

3rd June 2010

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1.0 An invitation to validate the workshop report

This report is a straightforward record of the group and plenary discussions at the environmental priorities review workshop held on the 28th May at the West Midlands Leaders Board.

You are invited to check and validate this record and to add to it using highlighted text and/or track changes. Please feel free to discuss any aspects with colleagues before making any further comments.

The methodology matrices have been attached as Appendix 1 and Appendix 2. Matrix 2, as the appraisal matrix, shows the results of the group discussions in terms of recommending whether an environmental topic should be brought forward as an environmental priority into a new West Midlands strategy or Action Plan. Any further comments that you may wish to make on this matrix would be very welcome; again, please use track changes or highlighting to make clear where you have added information.

Where there are contradictory or opposing views in Matrix 2, these have been recorded using red text to highlight where there is currently no agreement.

We need your response by Wednesday the 16th June at the very latest so that the draft final report to the steering group can be completed on time. If we do not hear from you by the 16th we will assume that you have no further comments.

2.0 Workshop proceedings

2.1 Plenary session 1: comments following group checks on the draft risk assessment

Some people wondered whether an ecosystem goods and services approach (EsA) would work in relation to historic resources, i.e. does an EsA adequately cover this topic?

The Ecosystem Approach takes the cultural and aesthetic aspects of the land and natural resources into account in terms of the cultural, spiritual and aesthetic benefits that people get from ecosystems. Obviously buildings and similar structures are not part of natural systems but they are derived from them, e.g. local stone, aggregates, local timber and so on.

There was a query as to whether this project replaced the Defra Advisory Group work or complimented it. *This project compliments and builds on the work of the DAG.*

Some people were concerned about what timescale to use when considering level of risk, and what about long term changes in relation to climate change.

It was explained that two topics had been removed from the list for consideration in each matrix so that they could be used as cross-cutting themes/criteria:

- *Taking an integrated approach to planning and management of natural resources;*
- *Climate change adaptation.*

Also, David Clarke advised a longer timeframe was necessary for developing a West Midlands-wide strategic approach and that this could then be used to develop a 3-5 year short-term Action Plan.

Several people suggested grouping topics to rationalise the long list, e.g. there could be an overall category/topic for "energy" to cover all aspects of renewable energy and fossil fuel energy.

Is 'risk' appropriate and how to judge level of risk?

Because of the huge variation in topics and the lack of quantitative data for many, the method uses a risk-assessment approach based on qualitative professional stakeholder judgement. It was up to people to agree as a group whether the level and magnitude of risk for each topic was high, medium or low. The

evidence base for the risk assessment was the wealth of regional and sub-regional research, data and information that stakeholders have been compiling for the RSS. Once agreed, the matrices provide an audit trail that can be refined and improved over time as more information becomes available and government priorities change.

How should 'responsibility' for a risk be allocated? For example the air quality topic is ultimately concerned with traffic emissions in urban areas, which is the main responsibility of local transport authorities.

Responsibility for action is what each group needed to suggest in completing matrix 2 in relation to whether national policy and local implementation was sufficient for a topic and in terms of monitoring and measuring progress.

2.2 Group/Table 1: Matrix One Exercise

Restoring Degraded Areas

- Significant levels of development on previously developed land, but of this only a small proportion on derelict land- indicates development on gardens / big property rather than areas we should be targeting
- Need to balance advantage of restoration with potential ecological value of derelict land
- Economic implications of not restoring land- lack of investment in the area
- Very much based on location- mainly urban but also former military areas, quarries and landfill sites
- This affects legacy / perception of the area as a whole
- Group considered risks to people / society may be higher than medium because of perception and sub-regional issues- 'medium +'
- Overall risk- Group agreed on 'Medium +

Renewable Energy Targets

- There are fewer options in this region due to there being no coastline.
- Huge opportunities but we are looking in the wrong place
- Key issues are investment in distribution infrastructure
- Should be more about efficient use of energy instead of just renewables- e.g. CHP – low carbon
- Local risk of not delivering
- Group considered risk to people should be higher- e.g. implications if fossil fuels run out could affect hospitals, schools etc.
- Also risk to environment should be higher- interlinked
- High risk if target is too high
- High risk to climate change if not meeting target

- Overall risk- High
- This topic should be merged with locational criteria and energy efficiency and titled: 'Energy Supply and Management'

Renewable Energy: Locational Criteria

- Locally specific
- If criteria is wrong or we don't have any criteria there could be a high risk to environment
- Low risk if criteria are correct
- Sub-regional / locality issue- criteria will change across region

Energy Efficiency

- In areas in the West Midlands low incomes influence house prices which influence quality of new build- mean it is harder to implement energy efficiency measures
- Not just about new build- important issue is existing stock- retrofit
- Group agreed with a high risk to the environment
- Additional point not picked up elsewhere- potential increased immigration due to climate change- increased population= increased risk
- Potential summer cooling required as well- more complexities

Sustainable Design and Construction

- Overlap with energy efficiency- could be combined?
- Groups considered risk to environment should be 'High'
- Group also considered high risk to people and economy as well.
- Problem at the moment with Site Waste Management Plans- mandatory but no-one to check them

Air Quality

- There was some difference in opinion
- Some considered risk to people and environment is 'High'
- Need for industrial plants and factories to consider their emissions
- Air quality clearly affects people in terms of health
- Appears to be worse in highly populated areas
- Worse around transport corridors- motorways run through the West Midlands- not much we can do about it
- Also affects environment- example of HRA picked up effects of air quality in Cannock Chase on biodiversity
- AQMAs based on national standards- are these correct?- possible issues in terms of PM10
- Group agreed 'Medium' risk overall to environment (but high in localised areas)
- High risk to people in urban areas

- Group agreed low risk to economy
- Overall, group considered risk to be 'Low + / 'Medium'

Waste

- Doesn't live in isolation
- Some in group considered it should be called Resources rather than Waste
- Matrix 1 doesn't reflect most up to date document- waste is actually decreasing at the moment- not sure if this is due to recession or other factors
- Group considered this is high risk but declining in importance
- Note sure if landfill capacity is as stated by EA
- Group agreed with risk levels

2.2.1 Group/Table 1: Matrix Two Exercise

Restoring degraded areas

- Risk - difference between perception and reality
- High significance in certain areas
- Potential issues with methodology- one of its limitations is it doesn't recognise that risk is different in different parts of the country
- This topic has been given a lot of attention
- Resource issue- it's addressed but practical implementation needed
- Brownfield land committee already working collaboratively
- No regional policy necessarily needed

Air Quality - Sub-regional collaboration only, group generally felt little could be done at regional level

Energy

- Opportunities in terms of low carbon economy- growth area
- New build well dealt with at national level- building regs etc.
- Regional differentiation is that it is of high importance at West Midlands is at the bottom of the league
- Also no coastline- have to look at other areas
- More energy from waste in region- opportunity for distribution infrastructure to link in

Waste

- Landfill tax at national level drives it
- National but with regional and sub-regional distinctiveness

Sustainable Design and Construction - Medium level of regional distinctiveness due to house price / income issues affecting ability to influence design

2.3 Group/Table 3: Matrix One Exercise

The DAG work should compliment and not duplicate this work which is tackling the full range of environmental issues whereas the DAG work is more selective.

The historic environment is at risk - not just industrial (of which most of the resource is not listed) and urban heritage but also historic farmsteads which the West Midlands has in greater nos than the national average; the majority are unlisted.

The undesignated heritage resource (buildings, monuments and landscapes including local level non-statutory sites that also have related biodiversity and geological interest) has not been quantified. For this reason it is hard to quantify the impact this resource has on the economy across the West Midlands – this data gap needs to be filled.

More importantly, we need to look more broadly at historic places and their character, not just individual assets but the sum of all the parts.

Trees woods and forestry have a major role in carbon storage but there has been a big reduction in the rate of planting over the last 10 yrs. They also have a major role in liveability of places, esp when taking likely climate change impacts into account, i.e. creating better micro-climates.

The concept of 'Green Belt' is outdated – the focus should be on green infrastructure which is a much better approach and applies everywhere/is universal. (But big with new government and effective)?

More clarity is needed about regional and sub-regional to local objectives for trees, woods and forestry, e.g. maintain, restore, enhance and where exactly do these apply?

2.4 Group/Table 4: Matrix One Exercise

Restoring Degraded Areas

- Unsuitable development of 'green' areas could potentially have a negative impact on the environment over and above the impact of merely realising opportunities to restore degraded areas
- Matrix assumes that degraded areas in question are of no value.[*Not true, no values are attributed to any topic in matrix 1*]
- Group considered risks to environment to be upgraded from low to medium
- Proposed development might not be ideal – having negative impacts on environment, society and the area as a whole.
- Overall risk – group considered change from Medium to High.

Renewable Energy Targets

- Risk of Fuel Security for wider society is continually increasing
- Lack of Strategy at regional level will result in no action being driven at lower levels
- Group believes Renewable Energy targets and locational criteria should be merged.
- Overall risk level from Medium to High and increasing.

Renewable Energy: Locational Criteria

- Environmental risk – will change the landscape

Energy Efficiency

- Environmental risk of wider strain on resources
- Risk that energy efficiency is not dealt with across society e.g. SMEs cannot access support to help tackle it.
- Increased cost to society
- Area-wide potential negative impact in terms of reputation and also financially if not seen to be or do not appropriately deal with [*improving*] energy efficiency.

Sustainable Design and Construction

- Perceived risk resulting from mismatch in terms of User and Developer benefits – risk that the cost and general savings won't be passed on [*to buyers?*].
- Region/area wide risk would be the missed opportunity to capitalize on the reputational and financial benefits.

Air Quality

- Group believed that there was also an area-wide risk in terms of significant healthcare costs stemming from poor air quality [*surely only in urban areas?]*
- Group believed that air quality was perhaps the responsibility of the transport sector [*because the main source of pollution is traffic emissions]*.

Waste

- Additional environmental risk through increased fly-tipping
- Group believed that generally risk has too great an emphasis on domestic waste. Focus should be on industrial/commercial/demolition sources. [*no emphasis was given in the draft assessment*]

2.4.1 Group/Table 4: Matrix Two Exercise

General Comments

- 'Scale and Magnitude of risk' and 'Is the risk regionally specific' categories were thought to be very closely linked and could perhaps be merged since the latter defines the former.
- Little perceived benefit in prescribing 'arbitrary' levels of risk in 'Scale and Magnitude of risk'
- Opportunities category also believed to be similar to Impacts.

2.5 Group/Tables 2 & 5: Matrix One Exercise

The WM environmental priorities should be limited to matters/topics too big for each local planning authority to handle individually, e.g:

- A strategic, West Midlands approach should integrate issues such as landscape and food security to set clear regional priorities. This would lead to the best possible outcomes on economic, climate change, environmental and social issues.
- Strategic direction should provide clarifty and balance all material factors
- Strategic direction should link national funding/initiatives to local issues such as renewable energy (anaerobic digestion) and local food waste to ensure 'financially grounded' opportunities
- There are local drivers for defining local priorities so 'strategic direction' needs to have flexibility to be successful
- Monitoring is a cornerstone of successful strategic direction at the West Midlands level
- The WM water environment is unique as it feeds into all other regional areas

- Water quality and climate change are a big issue. Data and study information would be useful at a local level to assist local planning authorities. Water is a cross-authority issue so a cross authority approach should be applied
- Having a regional action plan that sets out an approach to collaborative working and assist local authorities in understanding what can be addressed strategically would be advantageous
- Green infrastructure could be incorporated into an overall environmental topic that focuses on overall environmental protection and enhancement
- Agricultural research at a strategic level would assist in setting local priorities. Some 80% of land in the UK is in agricultural use so small changes could have a big environmental impact
- Sustainable materials/resources linking 50% construction waste to recycling for and offsetting of aggregates needs to be done strategically
- Good quality strategic baseline data for renewables would assist in setting meaningful targets
- Waste issues have local interdependencies which could be directed strategically
- Guidance on community led renewable at a West Midlands level would be very useful

The groups from both tables commented that:

Flood Risk – This should be handled differently from the water environment/management issue which ranks as a significant West Midlands-specific issue. Flood risk is overall considered to be controlled via the national policy framework for individual projects. The EA and other agencies, however, are not necessarily providing wider, integrated responses to [flooding] issues. LAs don't have the capacity or resources either. Need to challenge plans and capitalise on wider opportunities [not just focus on single issue but related aspects?]

In contrast the water environment and management issues need to be managed and planned on a sub regional/river catchment level. The water environment and its effective management cannot be handled at local level. Water management is subject to policy/action from outside of the area, e.g. Wales.

Safeguarding Minerals – There was consensus by both groups that minerals were a big issue but that as a region the WM doesn't have any significant or specific issues that require strategic direction beyond the national minerals policy. The role of minerals for infrastructure provision is key [provide for what is most needed where?]

Aggregates – There was agreement from both groups that the issue of aggregates was not being properly planned at present. There was consensus that strategic direction is required if we are going to plan more sustainably to meet for future needs.

Brick Clay – There was agreement from both groups that brick clay did probably not require any specific strategic direction.

Green Instrastructure, Biodiversity and Geodiversity – There is currently a fragmented approach/progress across the West Midlands because there are 33 local authorities. Perhaps need to stress the importance of its role in supporting the economy. There was consensus in both groups that these topics could be merged into one topic. There was however a difference of opinion over whether strategic direction was needed, with one group saying yes and the other group accepting national and local direction was enough/adequate. There was perhaps a feeling that a consolidated policy covering many previous topics is too big an issue to ignore as a strategic level approach.

Protection of agricultural land – There was a difference of opinion over whether there should be strategic guidance on agriculture. One group felt that the integration of agriculture, food security and the environmental impacts would warrant a clear strategic direction as 80% of the land is in agricultural thus making the possibility to influence positive change a significant opportunity. One group felt that agriculture was not regionally specific enough to warrant direction.

2.6 Group/Table 6: Matrix One Exercise

The timescale for considering risks for any topic is very important but can vary considerably, depending on the topic.

Landscape – changes in landscape (including biodiversity and geodiversity) can directly impact peoples' health and well-being and in turn impact on the economy [for the better or for worse]. Agreement that risks to landscape are 'medium'.

The issues arising for each topic can be much more important at 'place' level than at 'landscape level' or West Midlands-wide, i.e. the geography of issues can vary considerably from place to place.

Water – the supply is finite and will limit economic development and growth if there is no re-thinking/investment in radical, new infrastructure.

2.6.1 Group/Table 4: Matrix Two Exercise

We should use spatial frameworks [for natural resources] to foster collaborative working especially between local authorities, the most useful spatial units for doing this are river catchments and Natural/Landscape Character Areas.

Water issues – the debate about wider impacts on the environment still need to be had, e.g. with water companies.

The environmental topic determines its relevance to an area or place, e.g. different topics have different geographies of governance, so best to use the geography of the resource/asset for [planning and management] and bring together decision-makers as appropriate to agree how to progress.

3.0 General, concluding comments/observations

Collaboration between local authorities and organisations is essential for successfully tackling many environmental issues, i.e. shared solutions are necessary. It is also better to work together locally to achieve a solution rather than having something – one size fits all - imposed from above/top-down.

Some form of West Midlands-wide guidance on dealing with environmental priorities was considered to be of most value, especially given the recent change in government. This could also suggest or advise on what joint research was necessary and what evidence gaps need filling.

Collaboration at the sub-regional level to tackle priorities for action would be beneficial but currently agencies, authorities and organisations all work to their own administrative geographies and these seldom coincide. In contrast, natural assets don't correspond to administrative boundaries, and they need to be managed according to their own geography, i.e. the spatial geography of each resource.

As a result of the workshop, the initial revised, prioritised list of topics for consideration at the West Midlands level are:

- Historic environment
- Landscapes
- Trees, woods and forestry
- Energy (covering efficiency, fossil fuels, renewables – including location and targets)
- Apportionment of aggregates
- Waste

There were opposing views about the need for strategic guidance on/prioritising:

- Agricultural land
- Water
- Restoring degraded areas, especially brown field land

- Biodiversity and geodiversity

The project team will develop the ideas expressed at the workshop – and any further comments – into a project report with recommendations for what policy options could be developed for the preferred environmental priorities.

Appendix C – Matrix 1 :Final version

West Midlands environmental priorities review

RSS Phase 3 & 2 Topics	Summary of Regional trends and characteristics	Issues (risk to the environment)	Risk(s) to people/society	Risk(s) to economy inc potential cost to the region	Overall level of risk
Restoring degraded areas and managing and creating new high quality environments	West Midlands is generally endowed with good quality natural and historic environmental assets, however there are some areas (particularly major urban areas) where the outdoor living environment is of poor quality and historic assets are at risk. In some parts of the region environmental quality, landscape and the historic environment are coming under increasing pressure from development, leading to change inconsistent with character. Brownfield/derelict land detracts from the quality of the region's environment (especially in major urban areas) - difficult to attract people and economic investment to these areas. 84% of new dwellings in West Midlands were built on previously developed land in 2008 However, only 15% of land developed was classified as derelict or vacant in 2004-2007. Areas with most derelict land proportionally are Stoke on Trent, Walsall and Wolverhampton. Shropshire has the most derelict land in total area. The latest reduction means there has been a 33% fall in the stock of derelict land since 2001, and a 23% reduction since 2006. In the last two years 22% of the derelict land reclaimed was for green space use.	**MEDIUM** Failure to realise opportunities to improve and utilise sustainably existing assets e.g. buildings	As above, plus Lack of co-ordinated planning and investment, lack of forward-looking vision, low consensus over targets?	Sub-optimal benefits to economy, less security for SMEs, more businesses at risk from climate change impacts	**High - image and reputation**
Green infrastructure	The West Midlands has a diverse range of natural habitats and contains nationally significant proportions of priority habitats (e.g. 20% of England's lowland meadows). However many of the region's habitats are fragmented, disjointed and isolated, both physically and functionally. This issue also links to socio-economic issues- for example the West Midlands has high levels of obesity which could be addressed through improve green infrastructure. Green infrastructure to reduce impacts of changing climate is a priority area identified by Sustainability West Midlands. There has been some progress in planning for green infrastructure, especially in some Growth Points, but principles need to be adopted more widely.	Poor connectivity, poor quality, poor resilience to climate change, poor species dispersal	As above + loss opportunities for recreation and health benefits of exercise and 'green' environments	Sub-optimal benefits to economy, less security for SMEs, more businesses at risk from climate change impacts	**Medium**
Protection and enhancement of the historic environment	The West Midlands has varying and distinctive rural areas (e.g. historic features around the Welsh borders, historic farmsteads) matched by diversity of urban landscapes (including both medieval towns such as Hereford and modern New Towns such as Telford). It has a legacy of historic buildings, structures, monuments and landscapes. There have been a number of recent success with regards to protecting these assets, but a notable proportion remain at risk of damage / loss. Valued historic buildings, archaeological remains and historic landscapes across the West Midlands continue to be at risk through neglect, decay, loss of use, and development pressures. The Heritage at Risk Register (2009) shows that the West Midlands is above the national average for listed buildings (Grade I & II*), scheduled monuments, and registered parks and gardens at risk. A third of the buildings are in immediate risk of further rapid deterioration or loss of fabric compared to a fifth nationally. The total cost of repair, and, where appropriate, conversion of these buildings to their optimum viable use is estimated to be £61 declined in 2008/09, continuing the progress from last year, and reversing the gradual increase in the number and overall proportion since 2001. Twelve buildings were removed from the register, but only seven new buildings at risk were added. Data on the condition and risk status of	Degradation of the character and quality of townscapes and landscapes. Loss of industrial heritage and other heritage assets. Increase in heritage assets at risk of damage / loss / decay of historic assets	Degradation of historic interest of sites and places Loss of cultural history, identity and sense of place. Lower quality and less distinctiven working and living environments. Loss of opportunities for education, leisure, and focus for community engagement.	Loss of tourism revenue, increasing costs of restoration, reduced inward investment due to declining attractiveness and distictive offer of the region. Sustainable reuse of assets	**Medium**
Restoration, conservation and enhancement of the region's **landscapes**	5 AONBs wholly or partly within the region – Cannock Chase, Cotswolds, Malvern Hills, Shropshire Hills, and the Wye Valley. Currently 10 out of 25 of the region's National Character Areas (approximately 63% of the region's landscape by area) are assessed as 'neglected' or 'diverging' (changing in a way inconsistent with character). Many of the region's urban and urban fringe landscapes are of poor quality and fragmented. Between 1999 and 2003, Joint Character Areas in the eastern (and particularly the south-eastern) side of the Region have changed, much of it in a way that is inconsistent with the existing character whilst the western side is largely stable. Areas in the northeast of the region (largely consistent with the Peak District National Park) have broadly maintained their landscape character in a way consistent with the vision.	Adverse change in landscape character, poorer flood mitigation, poorer species dispersal, lower species resilience to climate change impacts, continued conservation losses, degradation of ecosystem function	**MEDIUM:** Poor quality urban and rural landscape impact n quality of life, health and well-being Loss of cultural identity and sense of place, less resilient to adverse changes, e.g. climate change impacts	Reduced tourism revenue, reduced farm revenues? High quality environment/landscape attracts business whereas the reverse stops inward investment.	**Medium**
Protecting, managing and enhancing the region's **biodiversity** and geodiversity	See green infrastructure. The region's plants and animals have suffered major declines in recent decades and there are continuing pressures from changing land uses and more indirect factors such as climate change. 18% decline in farmland bird species in West Midlands between 1994 and 2007 (-13% nationally). 34% of SSSIs in West Midlands in favourable condition, 51% unfavourable recovering, 12% unfavourable no change, 2% unfavourable decling. However, figures show a significant increase in the area of SSSIs in favourable or recovering condition, from 71% in 2007 to 84% in 2009. This represents a major achievement for Natural England and its partners over the 2 year period. All parts of the Region showed improvement, with Herefordshire continuing to have the lowest proportion.	Loss of habitat & species diversity = less resilience to climate change, loss of intrinsic value,	As for all of the above re quality of life	Increased risks to crops/produce from pests and less pollination? Impact on tourism	**Medium?**
Trees, woods and forestry	Trees and woodlands- in particular ancient and native woodlands and veteran trees, are a fundamental component of the region's countryside and greenspaces. The region's total area of woodland and forestry (of 0.1 hectares or more) is 98,474 hectares. This represents 7.6% of the land area (compared with 8.4% for England as whole). There has been an increase of 1.5% in woodland and forestry cover in the region in the past 20 years, a result of significant new planting of broadleaves through various grant schemes. Though the majority of new planting has occurred in the more rural shire counties, more recently there has been shift to planting in the urban and urban fringe areas. The area of planting increased marginally in 2008/09, but remains well below the levels in the first half of the decade.	Loss of broadleaved woodland, poor or no management hence poor structure (physical; & age) , loss of flood mitigation, soil & slope stabilisation, effects of climate change	Reduction in carbon sequestration, reduction in air quality, increased risk of flooding through increased run-off. Important for hHealth well-being and a recreationa resource, i.e. health and well-being suffer with less access to trees, woods.	Impact on timber products for construction, fewer green technology jobs, farmers less able to diversify, poorly structured timber industry. Loss of business spply chains mean that we end up relying on imports. Loss of opportunity for biomass.	**Low**

RSS Phase 3 & 2 Topics	Summary of Regional trends and characteristics	Issues (risk to the environment)	Risk(s) to people/society	Risk(s) to economy inc potential cost to the region	Overall level of risk
Water environment	During low flows, much of the region's water resources are already fully committed and in some cases over committed, threatening the integrity of river and wetland habitats. 44% of freshwater habitat in West Midlands is in unfavourable condition. Rivers slightly below national water quality standards- 72% of rivers are of a 'good' chemical quality and 60% of a 'good' biological quality (compared to 87% and 89% nationally) Water quality has improved but standards still fail to meet conservation requirements of most freshwater species protected under Habitats Directive (e.g. salmon). Diffuse pollution due to agriculture is a continuing problem Significant pressures on water resources are anticipated in the future, as a result of a predicted increased population and climate change. Low water quality tends to be located in urban areas, particularly the watercourses in Birmingham, Solihull, Stoke on Trent, Coventry, and the Black Country. Major urban areas such as Birmingham, Wolverhampton and Coventry were identified as having one or more STW in a high risk category. The increase in single-person households, long-run changes increasing affluence (and demand for water using appliance per person.	Polluted surface waters and aquifers, low flows and drought, habitat and ecosystem degradation and loss of quality & function	Health impacts, reduced quality of life, greater deprivation	Impacts on water intensive manufacturing and food & drink sectors especially, impacts on farm productivity and rural economy. Water treatment & supply costs increase Risks that we're not able to develop because of limits on supply, lack of infrastructure. Less water leads to fewer homes	**High**
Flood risk	Approximately 14% of land in West Mids is fluvial floodplain, more than 94000 properties are located in flood risk areas and approximately 18000 people live in areas at risk of flooding. In relative terms the region does not have a large area of land vulnerable to flooding, and few new houses are being constructed on this land. However, the incidence of flooding has been increasing in the Region with more frequent wetter periods associated with global warming. This is exacerbated by the use of drainage systems that are designed to discharge surface water into watercourses more quickly. Surface water flooding a particular problem in urban areas which are also identified as possible locations for growth.	Increased incidence and severity of flooding, loss of soils, damage to riparian habitat	Health & safety impacts, displaced communities, accessibility/mobility disruptions	flood damage costs to businesses & infrastructure, loss of earnings/income, job losses	**Low**
Protection of agricultural land	Agricultural land quality is graded from 1 (best) to 5 (worst). Whilst The West Midlands has a higher proportion of grade 1 land than England, the distribution between the counties is uneven with higher proportions of this land in Herefordshire and Shropshire, and lower proportions in Staffordshire and Warwickshire.	Erosion of topsoil from poor management or inappropriate use, flooding and wind erosion in dry seasons, (soil) carbon loss	reduction in local produce, reduction in variety of produce	Increased costs, job losses, bigger impacts in rural areas	**Low**
Air quality	Air quality has improved greatly over the past 50 years; but there are still some problems. Air pollution still exceeds recommended air quality standards on a number of days every year in both urban and rural areas. However, rural parts of the region enjoy very good ambient air quality. 17 local authorities in the West Midlands have designated AQMAs. The whole of Birmingham and Wolverhampton, and much of the M6 corridor, has been declared an AQMA. NO2 from traffic is the main reason for failure of standards in this region. Air pollution was moderate or higher on 36 days in Birmingham centre, 30 days in Wolverhampton, 68 days in Stoke-on-Trent, and 55 days in Leamington in 2006. Transport is a major contributor to poor air quality in the region. An estimated 50,115 million vehicle kilometres were travelled on the region's roads in 2008, compared to 40,543 million in 1993. Highest traffic in Birmingham, Staffs, Warwickshire and Worcestershire.	Traffic emissions, ozone creation, sulphur dioxide, Nox - impacts on vegetation & wildlife, acidification and nutrient inputs	Health impacts in urban areas (and rural for ozone) and near major road infrastructure, reduced quality of life	Less attractive to inward investment	**Low**
Energy efficiency	The housing development at Lyng (West Bromwich) based on the “integer” design is an example of how minimisation of energy demand through use of natural heating and lighting coupled and appropriate construction and design of buildings can lead to increased energy efficiency.	Rising GHG emissions due to lack of thermal efficiency	Fuel poverty, winter deaths, less able to sell property	Static property market, business premises less attractive to inward investors, rising energy costs could impact on businesses in 'poor premises'. High % of existing building stock not thermally efficient, new build progress too slow?	**High**
Renewable energy targets	The Regional Energy Strategy published in 2004 sets a more modest target for renewable energy for the Region of 5%, reflecting its low baseline of renewable energy and the potential opportunities. Renewable energy sites in West Midlands in 2008 included 4 hydro, 2 wind/wave, 28 landfill gas, 37 biofuels /wastes. The region currently meets less than 1% of the region's electricity demand from renewable energy. The region makes up 6.7% of renewable energy generated in England. No specific broad areas identified as major locations for renewable energy development within the West Midlands. Some areas of the region have greater renewable energy resources than others,but likely that development will take place in a distributed manner across the West Midlands. Pressure for larger scale development of renewable energy is most likely to occur within the non-designated rural areas of the region. Highest wind energy resource is within Staffordshire, Shropshire and Herefordshire but also increasing opportunities in the rest of the region, as economically viable wind speeds reduce over time. There are opportunities for biomass, anaerobic and aerobic digestion in most parts of the region, however, need to consider proximity to fuel sources to minimise carbon emissions from transport.	Opportunities not being realised could lead to maintained reliance on fossil fuels and continuation of increasing carbon emissions Risk to other environmental resources such as landscape, biodiversity	Lack of low carbon fuel choice, fuel poverty, rising running costs	Targets not ambitious enough or too ambitious, or not supported by effective planning and funding measures? Lack of inward investment, rising energy costs impact on profits	**Medium to High**
Criteria for ensuring that renewable energy is appropriately located	As above.		As above, plus planners lack knowledge & confidence but targeted geographical basis is necessary, some tools but at very local level of use	As above	**Medium**
Positive use of Green Belt	In West Midlands the presumption against development can result in Green Belt becoming poorly managed and underused, where developers may discourage more positive uses in the hope that development might be accepted. A more positive approach, encouraging appropriate uses, management and enhancement would provide wider benefits.	Low quality peri-urban landscape - much of it is poor quality, but if we're going to have it we should deal with it properly. These tend to be neglected landscapes	Lower quality of life sometimes, sub-optimal supplies of ecosystem goods and service, higher level of threat from climate change impacts	Static property market, business premises less attractive to inward investors, rising energy costs could impact on businesses in 'poor premises'	**Low**

RSS Phase 3 & 2 Topics	Summary of Regional trends and characteristics	Issues (risk to the environment)	Risk(s) to people/society	Risk(s) to economy inc potential cost to the region	Overall level of risk
Safeguarding mineral resources in the West Midlands	West Midlands contains mineral deposits which are of national, regional and local significance, and these are gypsum, silica sand, limestone for cement, aggregates, natural building and roofing stone, shale, coal, brick clays and fireclays. Aggregates such as sand and gravel, crushed rock and a range of secondary and recycled materials used for construction purposes are the most widely used minerals found within the West Midlands. The Region nevertheless relies on imports of material from other regions and Wales for 23.3% of its requirements. The location of many mineral resources coincides with environmental and nature conservation designations. Aggregate production continues to take place in vulnerable environments. 14% of crushed rock was extracted from sites within AONBs and 38% was from SSSIs, while 44% of sand and gravel was from sites in the green belt. 4.29 million tonnes of secondary and recycled materials were sold as aggregates in 2003. This figure remains below the 5.5 million tonnes per year of alternative materials assumed by the Guidelines.	Risk of damage to landscape, biodiversity and heritage assets through mineral extraction Potential for increased transport associated with minerals extraction, with implications ofr air quality and CO2 emissions.	Lower quality of life in areas near extraction	Increased costs associated with construction materials Potential problems securing and maintaining supplies of indigenous mineral resources for the region (its citizens and the local economy) and ensuring that future generations have supplies available to meet their needs	**High?**
Apportioment of aggregates	The National and Regional Guidelines for Aggregates Provision in England 2001-2016 published in June 2003 sets out a need for 255 million tonnes of aggregate materials to be provided from primary land won sources within the West Midlands, with an additional 104 million tonnes from other sources, including imports from outside the Region and from Wales and secondary and recycled materials. The projections also provide for the export of primary aggregates to other regions.	247 million tonnes of primary aggregates 2005 - 2020. Importance of recycled materials to minimise requirements for new primary extraction. Risk of damage to landscape, biodiversity and heritage assets through mineral extraction Potential for increased transport associated with minerals extraction, with implications ofr air quality and CO2 emissions.	Lower quality of life in areas near extraction due to heavy road transport, dust, noise and so on. Empoyment prospects reduced is mineral extraction declines.	Increased costs associated with construction materials Potential problems securing and maintaining supplies of indigenous mineral resources for the region (its citizens and the local economy) and ensuring that future generations have supplies available to meet their needs	**High**
Future Brick Clay provision	Principal brick clay resource in West Midlands is the Etruria Formation and the main outcrops occur in Staffordshire and parts of the Black Country. Nationally, the Etruria formation covers only 1% of the total outcrop area of the brick clay resources. Despite the small size of the outcrop it is a very important brick clay resource and is covered by planning permissions over 9% of its area. This resource of premium quality clay is confined to a relatively small and fragmented outcrop which is almost exclusively in an area with a high population density. In the region the largest users of clay are the brick industry reflecting the concentration of working in and around the conurbation and Stoke on Trent. Fireclays are derived from coal measures, although almost exclusively as a by-product of opencast coal extraction. Although comprising less than 7% of total consumption, these are important premium quality clays which are used in relatively high value buff brick products manufactured at sites across the Midlands	Threat to scarce geological resource?	Could be QoL impacts, job losses in specific communities, Pressure from demand for new homes, regeneration	????? Increased costs for regional building if/when transport costs rise	**Medium**
Waste	Domestic waste generation levels are high and rising. The region performs well in terms of waste to landfill- 33% of municipal waste sent to landfill in 2008-9, compared with 50% nationally. 32% was incinerated via energy from waste (12% nationally), and 36% was recycled (just below the national average of 37%). The region's landfill capacity is due to run out in five years' time.	Potential groundwater contamination, aerosol emissions, future pollution problems Lack of space for landfill	Poor SCP approach, increasing levels of waste and poor infrastructure, lack of 'cradle to cradle initiatives'	Missed opportunities, less attractive to inward investment, less active/buoyant private sector	**High**
Energy - fossil fuels	There are significant reserves of unworked coal in the West Midlands along with other hydrocarbon resources. In some areas, previous coal mining has left a legacy of untreated and unrecorded mineshafts, surface methane venting, minewater drainage arrangements and vegetated colliery spoil heaps. As land use changes, this legacy will diminish but the venting of methane and greenhouse gases to the atmosphere contributes to climate change. Using the methane to supply local energy needs could reduce this impact whilst also helping to release land for development.	Rising contribution to GHG emissions	Fairly stable resource if less pressure to develop, with potential for methane fuels of benefit to local community energy initiatives? Short term pain and blight to specific communities	Little impact, possibly some benefits from methane use in specific areas?	**Low**
Sustainable building design and construction	Data gap. Very few LAs appear to have made sustainable construction standards mandatory but new regulations and targets for zero carbon development are incomong for 2016 and 2019,	Regional Sustainability Checklist poorly understood and not widely used, not enough regional support to make its use mandatory	Lower energy efficiency so more costly to heat, lower quality of life, communities not as sustainable as they could be.	Less attractive/active property markets, less inward investment, traffic and transport problems exacerbated	**High**
Soil	1.3% of WM area is peat (Staffordshire Moorlands, Black Mountains, Shropshire Hills, Cannock Chase, Sutton Park) 7.8% of WM area is woodland (Cannock Chase, Shropshire Hills, Wye Valley, Wyre are core areas) Nutrient enrichment - Staffordshire Moorlands, Black Mountains, Shropshire Hills, Cannock Chase, Sutton Park Grade 1 & 2 agric - throughout the region particularly Herefordshire, Shropshire Contaminated land - Black Country and major urban areas. Opportunity to remediate and restore region's contaminated land eg restoring contaminated land for development reduces the pressure on natural habitats and agricultural uses	Loss to development (soil sealing), loss of quality, soil erosion exacerbates fluvial flood risk, carbon storage loss eg peat has a high organic content and important for carbon storage, poor management can lead to impact on waterquality (sediment, nutrients, pesticides) and reduce productivity; some crops may be grown in locations or under management systems that increase risk of erosion; Grade 1 and 2 agricultural land will be needed to ensure food security in the future - need to protect high qaulity soils. Risk of nutrient enrichment in sensitive low nutrient habitats eg additional nutrients in these habitats will lead to reduced biodiversity. Inappropriate manaement causes diffuse polllution	**Medium -** Poor management leading to reduced, lower quality ecosystem goods and services. Lower quality of life, greater flood risk, and so on Loss of food security	Depressed farming sector, timber, biomass, food & drink sector impacts, property sector impacts. Loss of food security	**Low**

Appendix D – Matrix 2 :Final version

Environmental Topics	Overall level of risk (from Matrix 1)	Scale and magnitude of risk	Is the risk regionally specific? Are there priority Zones/Areas, i.e. is this topic distinctive for the West Midlands?	Opportunities - what benefits would result if this risk was reduced or resolved?	Is West Midlands guidance required on this topic of is it already well catered for at national and local levels?	Could new guidance for the West Midlands directly control or influence outcomes, or express concern only?	Monitoring & measuring - what KPIs exist or could be used?	Strategic guidance for the West Midlands? Yes or No
Restoring degraded areas and managing and creating new high quality environments	**High**	Varies from low with hot spots to large urban areas. Also includes specific rural areas	Medium - West Midlands could be regarded as distinctive (Black Country, North Staffs, Nothern Coventry)	High - Good, high quality development in the right areas. Positive opportunities in regenerating older urban areas, embracing green infrastrucutre and sustainable reuse of buildings.	Yes- in terms of maintaining collaberation-existing brownfield ladn working party	Yes - collaboration necessary at 'area-wide' level	% of degraded land per area and previously developed land (PDL) - although this doesn't indicate the quality	**Yes**
Green infrastructure ***(completed example as a draft)***	**Medium**	Regional / sub-regional	Strong relationship with biodiversity and geodiversity	Raising the standard and quality of masterplanning and design for all types of development will help to strengthen and enhance green infrastructure	Already well covered by national guidance and best addressed through LA Strategies, on the basis that these 'join-up' across adminsitrative boundaries.	There is no real need for the Strategy to include a policy on this topic. It could however make reference to the West Midlands Green Infrastructure Prospectus definitions and how LAs should use this and other tools in defining their own local standards and LDF policies, recognising the importance of ecosystem service delivery . Very important but not a priority for the Strategy for the West Midlands (SWM) because covered in EU and national policy for delivery at local levels.	LA compliance with PPG17 evidenced by the presence of local standards and policies in LA LDFs, plus each LA has a Green Infrastructure Strategy with targets, or is putting one in place by an agreed date.	**NO -** but its role needs to be emphasised in strategic guidance for landscape and biodiversity.
Protection and enhancement of the historic environment	**Medium**	medium level of impact	Yes, this is a regionally distinctive topic for the whole region, but the nature of the resource is highly variable across the region	Heritage assets bring in 10% of the region's GDP - this could probably be increased in ways to benefit historic assets, with stronger planning and social linkages.	National to regional to local strategy docs exist, so it is debatable as to whether more guidance is required, although some stakeholders feel there is a real need.	There is already a regional heritage strategy and now a new Action Plan for the historic environment, and most LAs have their own local strategy - but the extent of undesignated resource remains an important issue requiring a greater collaborative effort.	Heritage at risk (by asset type), adoption of cross-disciplinary action plans in progress. Also, extent of historic characterisation and use of this info	**Yes -** in support of the new Action Plan for the West Midlands
Restoration, conservation and enhancement of the region's **landscapes**	**Medium**	Medium level of impact	The whole region at character area and protected landscape level	Encourage partnership working across political boundaries	Opinion varies about the requirement for strategic guidance on landscapes, but landscape approaches enable integrated policy interventions and landscape-scale measures for climate change mitigation and adaptation	Good potential to influence greater joint working between local authorities	Countryside Quality Counts indicators for monitoring change in each character area, and driving planning policy	**Yes** for taking landscape-scale ecosystem services-based approach to managing all types of environmnetal and related socio-economic assets, using National Character Areas, Local Landscape Character Areas and Landscape Types, and river catchments to encourage cross-boundary sub-regional working.
Protecting, managing and enhancing the region's **biodiversity** and geodiversity	**Medium**	Strong relationship with green infrastructure, general pattern of decline but variable levels of impact	General decline overall	Scope for further/greater integration with social and economic programmes, i.e. strong links to both in terms of benefits	Needs updating in line with national policy for a strategic, cross-boundary ecosystem services approach	Yes, can encourage local versions of regional opportunities map	Yes, can monitor species	**Yes** - needs sub-regional, cross boundary working led at strategic level
Trees, woods and forestry	**Low**	medium level of impact	Not specific issue for the West Midlands, but there are issues that need addressing to foster a strongerand forward-looking socio-economic base for forestry	Need to make more of economic opportunities, social (health, well-being & recreational) and env opportunities like carbon storage, landscape, etc. Need to ensure that these are adequately addressed in LDFs at local level. Big potential for partnership working.	The West Midlands Forestry Framework provides an excellent strategy developed with stakeholder input - this needs implementing across all sectors of the region's economy and culture.	No - the forestry framework and local versions need to be used in shaping local planning policies and large infrastructure and economic initiatives.	Amount of new woodland created, condition of existing woodland, area of ancient woodland lost/saved/maintained.	**No** - but can be a sub-set of guidance on landscape-scale approaches.
Water environment	**High**	Large/high impact	Affects entire region - Urban & rural diffuse, major settlements and shire towns	Comply with WFD, improved env quality plus greater social and economic opportunities.	No - there is a plethora of existing policies and regulations from the Water FrameworkDirective down to local river catchment plans and similar. What is needed is a cross-disciplinary approach to planning and management.	No - there is a plethora of existing policies and regulations including the Water Framework Directive	Water quality is measured and reported by the EA	**No** - but need LAs to work together across catchments in terms of planning and land use influencing flows and water quality.
Flood risk	**Low**	Fairly localised	Localised areas of risk	Reduced risks to people, property and the economy	No, well covered by national strategy	No need to address this issue directly as can be dealt with in land management/natural resource management	Communities/ property /sectors at risk	**No**

Environmental Topics	Overall level of risk (from Matrix 1)	Scale and magnitude of risk	Is the risk regionally specific? Are there priority Zones/Areas, i.e. is this topic distinctive for the West Midlands?	Opportunities - what benefits would result if this risk was reduced or resolved?	Is West Midlands guidance required on this topic of is it already well catered for at national and local levels?	Could new guidance for the West Midlands directly control or influence outcomes, or express concern only?	Monitoring & measuring - what KPIs exist or could be used?	Strategic guidance for the West Midlands? Yes or No
Protection of agricultural land	**Low**	Large areas of the Wmids are under agricultural management	Whilst the west Midlands is a largely agricultural landscape there is nothing especially distinctive about agriculture in the West Midlands, but it has an important role in conserving and enhancing the region's natural/semi-natural environment.	Better integration of agriculture, food security and environmental benefits	No, well covered at national and local levels by support programmes and schemes	No - best dealt with via national agriculture and land management policies and measures	Defra's suite of indicators already in use	**No**
Air quality	**Low**	Low level but with hot spots (namely major urban areas and motorways)	Low (not regionally specific)	Generally low, but there are health benefits to at risk individuals in urban areas from increased tree planting, changing travel behaviour, reduced travel, electrical infrastructure opps	No	Maybe able to influence through coordination of AQMA's	Yes - Environment Agency and LA KPIs	**No**
Energy efficiency	**High**	High	Low (not regionally specific)	High for reducing fuel poverty and stimulating demand for energy efficiency products	No, covered by national policy and building regulations	No, for energy efficiency. Yes, new guidance could set / control targets. Targets could be accompanied by criteria to ensure that developments to meet any targets are appropriately located.	Yes for energy efficiency - SAP ratings. Yes, renewable energy installations are monitored. No, for criteria	**Yes** - Opportunities map could combine energy efficiency and renewable energy targets combined with criteria to ensure that developments are appropriately located and designed to optimise benefits
Renewable energy targets	**Medium to High**	High	High	High	Yes, UK Renewable Energy Strategy expects regions to set targets for renewable energy capacity in line with national targets or better where possible			
Criteria for ensuring that renewable energy is appropriately located	**Medium**	Medium	Widespread	Considerable benefits for low carbon economy to develop more rapidly	Maybe, PPS22 states that renewable energy should be assessed using criteria in RSS			
Positive use of Green Belt	**Low**	small scale risk/low magnitude	Locality-based, with different opportunities in different areas. Each green belt is different/has a different impact - most important are the West Mids connurbation and Stoke on Trent	Low - the challenge is to manage and enhance/improve the quality of the resource	No - covered by PPG2	Possibly influence through a green infrastructure and landscape policy across the West Mids with and especially at local level	Development in the Green Belt is already monitored	**No:** could be a sub-set of guidance on landscapes
Safeguarding mineral resources in the West Midlands	**High**	Fairly widespread, variable level of impacts.	Some minerals resources (eg Etruria Marl) are specic to the West Midlands	Opportunities for development and the minerals industry are increased by safeguarding. Greater use of recycled and secondary aggregate/materials	No, well covered at national and local levels	Maybe able to influence local policy	Maybe - could monitor planning applications determined on the grounds of safeguarding minerals	**No**
Apportionment of aggregates	**High**	Fairly widespread, variable level of impacts.	Very regionally specific. General expectation that each region will meet its own demand. Sub-regional apportionment agreed by WMRA in March 2010 sought to ensurethat demand is met closer to where need arises	Better match to meeting demand from local supply reduces need for transport. Greater use of recycled and secondary aggregate/materials	Yes, Government's Regional Guidelines require sub-regional apportionment by regions and a better approach needs to be agreed.	Yes, sub-regional apportionment by regions provides strong influence, but a more sustainable, less demand led approach in needed.	Yes, permitted reserves and minerals planning applications are monitored	**Yes**
Future Brick Clay provision	**Medium**	Localised, particularly around Staffordshire and Black Country. Moderate level of impact	Etruria Formation - main outcrops in Staffordshire and parts of Black Country	Need to protect scarce and valuable clays to protect and maintain brick clay making industry	No	Guidance maybe able to influence joint working between minerals planning authorities	Extent of resource, resource at risk	**No**
Waste	**High**	High	Medium. As a highly urbanised and industrial region the management of waste is a significant issue.	High. Opportunities for recycling, energy from waste and reduced waste to landfill	Yes, Waste management facilities of the right type, in the right pace and at the right time create interdependencies and require collaboration between sub-regions	Strategic guidance is necessary to co-ordinate and help to ensure waste management facilities of the right type, in the right pace and at the right time	Waste management is monitored	**Yes**
Energy - fossil fuels	**Low**	Area-specific and small-scale	No, not West Midlands specific.	No major opportunities in short-term, but may be longer-term opportunities related to security of energy supply	No, covered by national policy	No	Extent of resource, natural assets at risk	**No**
Sustainable building design and construction	**High**	High level of impact	Medium	High	No, well covered by building regulations and national policy. There is also a Regional Checklist	No	Use of the Regional Checklist should ideally be adopted as mandatory for developers by LAs.	**No:** but opportunites for LAs to share good practice need developing.
Soils	**Low**	Small scale risk/low magnitude	Not regionally specific but some areas will be more important than others, e.g. contaminated land and areas of intense agricultural use associated with poor local water quality/diffuse pollution	Selected opportunties to improve soil and water quality, especially for small, new developments	No, not required providing national policies and regulation are adequately enforced locally	No	Defra have developed soil quality indicators	**No**