Sustainability Appraisal and Strategic Environmental Assessment of the East Midlands Regional Economic Strategy: 2006-2020

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Halcrow Group Limited

July 2006

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East Midlands Development Agency

Sustainability Appraisal and Strategic Environmental Assessment of the East Midlands Regional Economic Strategy, 2006 – 2020

Environmental Statement July 2006

Halcrow Group Limited

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East Midlands Development Agency

Sustainability Appraisal and Strategic Environmental Assessment of the East Midlands Regional Economic Strategy, 2006 – 2020

Environmental Statement

Contents Amendment Record

This report has been issued and amended as follows:

Issue	Revision	Description	Date	Signed
1	1	DRAFT Environmental Statement	06/06/06	ND
2	1	SECOND DRAFT Environmental Statement	23/06/06	ND
3	1	THIRD DRAFT Environmental Statement	03/07/06	ND
4	1	FOURTH DRAFT Environmental Statement	13/07/06	ND
5	1	PDF Final Environment Statement	18/07/06	ND

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1 Introduction

1.1 Background

This is the Environmental Statement for the East Midlands Regional Economic Strategy (RES) 2006-2020. It is a document which provides an account of how the requirements of the SEA Directive have been met in undertaking a Strategic Environmental Assessment of the RES.

Following instruction from the DTi *emda* appointed Halcrow Group Ltd through a process of open competition to undertake an independent SA, incorporating the requirements of the SEA Directive, of the RES. This appointment was made to introduce transparency to the process and provide an independent perspective. This paper documents the process which was followed including key milestones in the process and represents a chronological account of what was done. For details of the assessment process and identification of potential environmental impacts and associated mitigation, see the final draft environmental report at the *emda* website www.emda.org.uk. Halcrow were appointed in August 2005 and are presently retained by *emda*.

Since August 2005, the RES preparation process and SA/SEA has been through a thorough and wide ranging consultation process which has led to various changes and new policies which have moved the Strategy further in the direction of sustainable development.

This is the first time that an SEA has been undertaken as part of the RES preparation. It forms a ground breaking step towards greater integration of sustainability at a regional level in the vital context of economic development and wellbeing.

1.2 Legislative Context of Sustainability Appraisal and Strategic Environmental Assessment

Paragraph 11 of Guidance to RDAs on Regional Strategies (DTi, 2005) states:

"Both the RES and the RSS are subject to European Directive 2001/42/EC on strategic environmental assessment (SEA) (transposed by the Environmental Assessment of Plans and Programmes Regulations 2004)."

In addition, paragraph 3 states:

"In developing the RES a full sustainability appraisal should be carried out in order to identify how the RDA and its partners will contribute to sustainable development."

The Planning and Compulsory Purchase Act 2004 details the requirement for SA to be undertaken as a part of the development or revision of Regional Spatial Strategies; Development Plan Documents (including Core Strategies, site-specific allocation of land and area Action Plans); and Supplementary Planning Documents. The principles of this SA procedure are applied to the RES in a similar way.

In July 2004, the Office of the Deputy Prime Minister published *The Environmental Assessment of Plans and Programmes Regulations 2004* (the SEA Regulations, Statutory Instrument 2004, No 1633). The Regulations provide the legislative mechanism for transposing European Directive 2001/42/EC, 'the Assessment of the Effects of Certain Plans and Programmes on the Environment' (the SEA Directive) into UK legislation.

The objective of SEA is to:

Provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development' (Article 1 of the SEA Directive).

1.3 Sustainability Appraisal and Strategic Environmental Assessment

1.3.1 Sustainability Appraisal

SA is a process that examines the extent to which plans contribute to the achievement of a full range of objectives that cover economic, social, environmental and natural resource considerations. The requirements of the SEA Directive have been integrated as part of the SA process.

Informal correspondence with Defra, DTi and ODPM (now the Department for Communities and Local Government) indicates that Government recommends SEA be subsumed into existing SA processes and frameworks. There is no specific proposal as to how this might be achieved for the RES, but the

methodology used to deliver the SA/SEA follows a similar approach to that laid out in Government guidance *Sustainability Appraisal of Regional Spatial Strategies and Local Development Documents* (ODPM, 2005).

The SA/SEA methodology has been designed to comply with the requirements of the Directive and yet be practical in terms of delivering a Sustainability Appraisal of the RES. In the case of this project, it has introduced a formal mechanism to identify, predict and assess potential environmental impacts. It has done this using an objectives-led approach combined with high quality comprehensive baseline data. In the case of the East Midlands RES this baseline data has been further enhanced by the comprehensive Evidence Base which has been produced by *emda* to help inform decision makers and introduce quantitative and empirical evidence led assessment and analysis to the RES preparation.

The SEA Objectives were designed to ensure that the issues of the SEA Directive are all represented (see Article 1(f)¹ of the Directive). Following these issues has helped ensure environmental considerations have been introduced to the plan making process. The objectives were prepared with the statutory consultees and their input has been very useful (see Figure 1). To avoid conflict amongst objectives, a compatibility assessment was undertaken. For full details of the methodology see the Scoping Report and Environmental Report. A total of 16 objectives were created.

1.3.2 Strategic Environmental Assessment (SEA)

SEA provides plan-making authorities with a process to incorporate environmental considerations into decision-making at an early stage and in an integrated way. The SA / SEA has been prepared consistently with current best practice in the field of SEA (A Practical Guide to the Strategic Environmental Assessment Directive, ODPM, 2005). It was considered essential that the SA / SEA occurred in parallel

¹ Annex 1(f) of the SEA Directive includes the a requirement that the assessment process considers potential significant effects on the following issues: biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the inter-relationship between the above factors.

with the plan preparation, with critical interfaces occurring at key stages. These are illustrated in Figure 1.1.

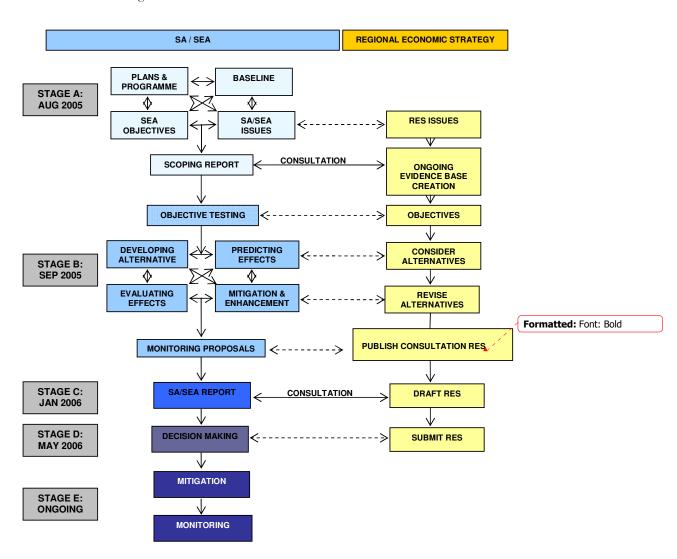


Figure 1.1: The SA/SEA and RES Development Process

SA and SEA are processes that are intended to improve the contribution that the document being appraised makes to the achievement of sustainable development and to the minimisation of environmental impacts. A key output requirement of SEA is the Environmental Report. It is possible to combine the two processes without losing the essence of either, by ensuring that the requirements of SEA are fully and clearly embedded in the integrated assessment process. Key reporting stages in the SA/SEA process are:

- Scoping Report (September 2005)
- Environmental Report and Non-Technical Summary (20th January 2006)
- Environmental Statement (Summer 2006)

Table 1.1 shows the overlap between the parallel assessment stages, as recommended by ODPM. The combined approach has been prepared on the basis of the following principles:

- Objectives are used as the basis for appraising impacts on various environmental, social and economic components;
- A review of the baseline situation is undertaken, including social and economic factors;
- Alternatives are appraised against social, economic, environmental and natural resource objectives, as well as baseline conditions;
- Policies are appraised on the same basis; and
- Indicators are devised for all objectives to assist in monitoring delivery of the plan and any negative effects thereof.

An Environmental Report was produced, however it has been pointed out at Consultation review that this should really be called Sustainability Report. For clarity, the two terms have been treated as synonymous in the SA/SEA but future SA/SEAs should call the reports SA Reports and make it clear that they include integration of the Environmental Report (which is a specific requirement of the SEA Directive).

Table 1.1: Links between SEA and SA Stages

	SEA Stages	SA Stages
A	Setting the context and objectives, establishing the baseline and deciding on the scope	Setting the context and objectives, establishing the baseline and deciding on the scope.
В	Developing and refining alternatives and assessing effects.	Developing and refining options and assessing effects
С	Preparing the Environmental Report.	Preparing the Sustainability Appraisal Report
D	Consultation and decision-making	Consulting on the draft plan and the Sustainability Report.
E	Monitoring implementation of the plan or programme	Monitoring the significant effects of implementing the RSS revision

1.4 This Environmental Statement

The RES and SA/SEA processes have been subject to extensive and comprehensive consultation with stakeholders and the public (see Chapter 2 for more details on consultation). Article 9 of the SEA Directive relates to providing information to all those involved in consultation, and states that:

Article 9(1): Member States shall ensure that, when a plan or programme is adopted, the authorities referred to in Article 6(3), the public and any Member State consulted under Article 7 are informed and the following items are made available to those so informed:

(a) the plan or programme as adopted,

(b) a statement summarising how environmental considerations have been integrated into the plan or programme and how the environmental report prepared pursuant to Article 5, the opinions expressed pursuant to Article 6 and the results of consultations entered into pursuant to Article 7 have been taken into account in accordance with Article 8 and the reasons for choosing the plan or programme as adopted, in the light of the other reasonable alternatives dealt with, and

(c) the measures decided concerning monitoring in accordance with Article 10.

This Environmental Statement fulfils the requirements of points (b) and (c) above by providing the following information:

- how responses raised in consultation during the SA/SEA have been taken into account during the preparation of the plan (see Chapter 2 and Annex I of this Environmental Statement);
- how environmental and sustainability considerations have been integrated into the plan (see Chapter 3);
- how the findings of the SA/SEA Report have been taken into account during decision making, and why the plan that has been adopted is better than alternatives that have been considered (see Chapter 4); and
- an outline of measures envisaged to monitor the environmental effects of the plan see (Chapter 5 and Annex I).

1.5 The East Midlands Regional Economic Strategy

The Regional Economic Strategy is a document that includes sustainable development at the core of its aims. Sustainable development includes a combination of environmental considerations, as well as social and economic ones, which together have the aim of leading to a high quality of life.

The RES sets the framework for the long term sustainable economic growth of the region. It is reviewed every three years, but looks far beyond this timescale. This Strategy is not about "quick fixes". It is about the long term transformation of the East Midlands economy. The region has been challenged by Government to be focused and to make the difficult decisions that are necessary to prioritise emda's efforts and generate maximum impact for their resources. Strongly performing regions are characterised by the ability of their institutions to work together

effectively to achieve common goals. The Strategy, therefore, provides leadership, through a shared vision, underpinned by agreed priorities and actions, to mobilise all regional partners to deliver coordinated long-term sustainable growth to the East Midlands economy.

The East Midlands' first RES, *Progress Through People*', was published in 1999. It set a target for the East Midlands of becoming a Top 20 region in Europe by 2010. The RES was revised and re-issued in 2003 as *Destination 2010*'. Given the huge importance of economic growth to the wider sustainable development of the region, to businesses, the environment and the overall quality of life of people and communities, the RES should inform the range of other strategies in the region, including the Integrated Regional Strategy, the Regional Spatial, Housing, Transport and Environment Strategies, along with those for international trade, tourism, culture, freight, health and waste management.

The RES is an economic strategy and it is proposed that it uses the Regional Index of Sustainable Economic Wellbeing (ISEW) as a means of measuring the progress of the East Midlands. ISEW is a groundbreaking composite measure which has been developed as part of the RES review. It includes an integrated indicator hierarchy embracing the following features:

- Economic wellbeing;
- Productivity;
- A basket of indictors directly aligned to the 10 RES strategic priorities; and
- Programmes, Projects and Activities.

Regional ISEW seeks to measure different factors that relate to economic wellbeing and create a single performance indicator.

The RES is divided into three structural themes focussed on raising productivity, ensuring sustainability and achieving quality. The vision for 2020 proposed in the RES is:

"By 2020, the East Midlands will be a flourishing region. Increasingly prosperous and productive, we will enjoy levels of economic wellbeing and a quality of life higher than the European average and comparable with the best in the world".

Raising productivity is the key objective of the RES. The RES is clear that it cannot achieve this objective without also addressing the environmental and social consequences of increased economic growth. It acknowledges that growth and economic wellbeing are built on the foundations of a cohesive society and a good quality natural environment. It states that growth should not harm the environment or the society in which we live, but where there may be adverse effects, these must be minimised and mitigated.

The East Midlands is striving to become a flourishing region, with a good quality of life and high – and improving – levels of economic wellbeing. To do this, action is required against all ten strategic priorities, and the prioritisation between these will change over time.

1.5.1 RES Structural Themes

The RES vision is to create a 'flourishing region' and is supported by three underpinning, or "structural" themes:

- · Raising Productivity
- · Ensuring Sustainability; and
- Achieving Equality.

The Strategy sets out the challenge to achieve more and growing businesses which can compete in a global market, to enable more people to become more skilled and able to benefit from new and better paid jobs. It highlights the importance of sustainable and effective transport and infrastructure to support a growing economy and the need to respect and protect the natural environment and for stronger cities and towns and vibrant rural communities to ensure that they are attractive places to live and work.

1.5.2 RES Strategic Priorities

The RES objectives will be achieved through 10 strategic priorities:

Employment, learning and skills Enterprise and business support Innovation Transport and logistics
Energy and resources
Environmental Protection
Land and Development
Cohesive Communities
Economic Renewal
Economic Inclusion

There are strong links between each of the priorities; each is interdependent with the others.

1.5.3 RES Priority Actions

The RES does not propose short-term solutions; it recognises that long term transformation requires bold thinking and to be realistic in its ambitions. The strategic priorities identified in the RES will lead to action on the ground. Those actions likely to have the most significant impact on the regional economy, will together help achieve *emda*'s regional goals.

Priority Actions are in themselves more akin to policy aspirations and deliberately do not contain a great detail of specification. Throughout the RES preparation process, they have been defined and examined through a process of considering alternatives and attempting to provide as much clarity as possible without compromising the strategic role of the RES.

In SA/SEA terms, this means that the assessment process deals with high-level strategic assessment of environmental, social and economic effects. The conslusions of the assessment process are similarly strategic. It is not a process that can yield detailed analysis in the form of an Environmental Impact Assessment (EU Directives 85/337/EEC and 97/11/EC) or a site specific assessment.

Upon adoption of the RES, an Implementation Plan will be the mechanism for delivering RES priority actions.

1.5.4 The Intervention Framework

A fundamental part of the RES policy identification process has been the need to identify and understand the rationale behind Market Intervention. DTi and HM Treasury require that RDAs record and articulate the basis for public policy intervention. In turn, the need for intervention informs RES policy. The

Intervention Framework has been prepared following discussions between the *emda* Strategy, Research & Evaluation (SRE) Team and DTI on the need for clear, evidence based justifications for RES actions.

With this in mind, the Intervention Framework for the East Midlands has been developed as a tool for use in RES policy development. It:

- sets out the evidence for intervention,
- explores the market failure argument to justify its inclusion,
- identifies alternative options for intervention; and
- identifies the preferred option.

All options (as well as the preferred option) are identified and assessed in terms of potential Sustainability Effects through the SA/SEA process.

This feature of the Intervention Framework has provided a unique and innovative way of helping identify reasonable alternatives as required by Article 5 (1) of the SEA Directive which states that alternatives must be considered and assessed as part of the SEA process.

1.5.5 Different editions of the RES

Three versions of the RES were produced prior to the adopted version:

- RES Consultation Document (October 2005)
- Draft RES published alongside the SA/SEA Final Draft Environmental Report (January 2006)
- Draft for Government RES (May 2006).

2 Consultation

2.1 Consultation, SA/SEA and the RES

Consultation is integral to the SA/SEA process. The involvement of a wide range of actors in the decision-making process leads to better informed decisions that are more likely to contribute towards sustainable development. The UK Government's sustainable development strategy *Securing the Future* (Defra, 2005) acknowledges that allowing communities to become involved in influencing the projects that directly affect their lives is central to increasing community cohesion, strengthening democracy and revitalising neighbourhoods.

Emda have embraced this aspiration and undertook a very comprehensive consultation programme to assist with the development of the RES which in turn helped inform the SA/SEA by placing the SA/SEA process at the heart of sustainability considerations as the plan was formulated.

The minimum consultation requirments of the UK SEA Regulations require that a five week consultation period with statutory consultees (see below) be undertaken at the scoping stage and that also a period of consultation deemed appropriate by the relevant body (ie *emda*) be undertaken for the Environmental Report.

At the very start of the process, *emda* decided to prepare a detailed and comprehensive strategy for consultation involving written consultation, participative workshops and presentations as well as internet-led initatives. In addition to this wider RES consultation programme, individual interviews were held with the statutory consultees to maximise their contribution to the process and to ensure a thorough and integrated approach was taken. As a result the RES preparation and SA/SEA process has managed to engage with a very wide cross section of the community as well as statutory bodies with responsibility for the SA/SEA process.

This section details the consultation activities of the SA/SEA and the RES, and provides a summary of their results. It describes how consultation comments were fed into the SA/SEA process in order to inform the final RES. Table 2.1 sets out a timetable of the consultation process.

2.2

Scoping Consultation

Regulation 12 (5) of the SEA Regulations state that:

When deciding on the scope and level of detail of the information that must be included in the sustainability report the responsible authority shall consult the consultation bodies.'

Currently there are four statutory consultation bodies in England which are:

• Countryside Agency;

• English Nature; and

• English Heritage;

• Environment Agency

The scoping consultation period lasted for five weeks, in accordance with ODPM guidance, from September to October 2005.

Table 2.1: Consultation Timetable

Publication / Event	Consultees	Date
SEA Meeting to discuss process and timetable	Statutory Consultees.	August 2005
Pre-Scoping meeting	Statutory Consultees	August 2005
Scoping Report	Consultation with Statutory Consultees and others, as listed below.	August – September 2005
Alternatives meetings	Statutory Consultees	September – November 2005
Consultation RES Workshops (x 2)	Consultation with organisations from across the East Midlands including Small and Medium Sized Enterprises, local authority and nongovernmental organisations.	November 2005
Final Draft Environmental Report	Consultation with Statutory Consultees and others, as listed below. The report is available for public viewing.	20 th January – 18 th April 2006

Post-consultation period meeting	Meeting held with environmental representatives to discuss representations made during the consultation period.	15 th May 2006
Environmental Statement	No formal consultation. The Statement must demonstrate to the public and consultees how SA outcomes have been fed into the adopted RES.	Summer 2006

In addition to the four statutory bodies already mentioned, *emda* extended the consultation to include:

- Government Office for the East Midlands;
- East Midlands Regional Assembly; and
- Rural Development Service.

2.3 Scoping consultation responses

Scoping responses were received from:

- English Heritage;
- Environment Agency;
- English Nature;
- Countryside Agency; and
- Rural Development Service.

In summary, the responses commended the approach being taken and concentrated on issues including recommendations for additional data sources, the need to refine the objectives (both RES and SA/SEA) and their relevant indicators and targets. A full summary of all responses at the scoping stage is available in Appendix C of the Final Draft Environmental Report).

2.4 Final Draft Environmental Report Consultation

Regulation 13 of the SEA Regulations requires Environmental Reports and the plan or programme to which they refer to be made available for inspection by the public, stakeholders and the consultation bodies. The Final Draft Environmental Report was produced on 20th January 2006 and this was made available for public consultation, along with the draft RES, until the 18th April 2006. Both documents were made available to view on *emda*'s website and copies of both documents were disseminated to the organisations listed in section 2.2. It was titled Final Draft Environmental Report since it was a consultation document in a format that could be changed following consultation if need be.

2.5 Final Draft Environmental Report Consultation Response

Consultation responses were received from:

- The Wildlife Trusts (East Midlands);
- East Midlands Environment Link (EMEL);
- English Nature;
- The Countryside Agency;
- Environment Agency;
- Forestry Commision; and
- English Heritage.

Sometimes the same consultation issue was raised by a number of organisations. Table 2.2 summarises these issues. These issues have each been considered in the writing of the Draft for Government RES (2006). Chapter four of this ES provides an account of how consultation responses have influenced the Draft for Government RES (2006) which was submitted to DTi, for approval, in May 2006. Comments which have been raised that are outside of the RES's control and influence are not cited e.g. comments that relate to housing allocations will be addressed by the Regional Spatial Strategy.

Table 2.2: Key Final Draft Environmental Report Consultation comments

Issue	Consultation comments (all text references relate to the Final Draft Environmental Report)	Response to consultation comment	Location in the Environmental Statement
Baseline	 All detailed comments are accepted and will be used to update the next version of the baseline to be produced by emda. Climate section change should make reference to adverse effect of air emissions generated from air traffic. Definition of woodland conversion sought. Appendix A: Restructure archaeology and built heritage chapters to form a new one called The Historic Environment. Various biodiversity updates. 	These comments relate to the baseline which will be updated as part of the next SA/SEA of the next RES. A record of the comment has been kept by emda.	N/A.
SA/SEA Objectives	 Comments were made to slightly amend some objectives. 	No change has been made to the SA/SEA objectives. A record of the comment will be recorded for the next RES and SA/SEA.	N/A
Transportation	 Consultees sought clarity in the RES when talking about forms of sustainable transport. Ouery raised suggested that all 	See Priority Action 4. See Priority Action	Table 4.1
	 Query raised suggested that all transport improvements related only to roads. 	4.	Table 4.1
	 Suggested that use of sustainable transport will focus only on public transport. 	See Priority Action 4.	Table 4.1
	 Number of miles presently incurred in trade of goods must be reduced. 	See Priority Action 2e which replaces the original 2c. Clarity regarding international trade is presented in detail. See also	Table 4.1

			Priority Action 4 regarding NEMA.	
	•	Policy 2(c) 1 will lead to increased air transportation.	See Priority Action 4.	Table 4.1
	•	Transportation proposals will have adverse effects on land take, air quality and climate change.	See Priority Action 4.	Table 4.1 and section 4.2.2
	•	Consultees agree with report conclusion that air transportation will have adverse affects on climate change.	See Priority Action 4.	Table 4.1 and section 4.2.2
	•	Policy 4(iii): Some consultees disagree with conclusion that growth of airports will have a minor adverse effect. Would like to see less growth in airports. Global climate impacts from greenhouse gases are considered a major impact. EA feel that the SA/SEA should be proposing further measures to offset these impacts such seeking to advocate less growth.	See new Priority Action 4.	Table 4.1 and section 4.2.2 and 4.3.
Historic Environment	•	Policy 1a (i) There is a benefit to the historic environment if traditional building skills shortages are addressed by encouraging appropriate training.	See Priority Action 2g.	Table 4.1.
	•	Mitigation 4 (iii) will lead to adverse environmental impacts on historic assets in the area of the airport in terms of noise and air quality. The assessment rating of negligible positive benefits is ambitious.	See Priority Action 4, 7b and 7c.	Table 4.1 and section 4.2.2.
Climate change	•	Renewable energy options are not included in the mitigation for climate change (page 52).	See Priority Action 5a, b and c	Table 4.1
Employment Sites	•	The RES should maximise opportunity for expanding Green Infrastructure.	See Priority Action 7c.	Table 4.1
	•	Mitigation for Policy 7b, part 1: Choice of employment sites should be informed by environmental assessment before EIA.	SEA and SA of Local Development Frameworks will help address this issue further. The RSS is also relevant.	Table 4.1
Global Trade	•	Policy 2c (i) This is always likely to	See Priority Action 2e which replaces	Table 4.1

		have a negative environmental effect overall, whilst providing other benefits.	the original 2c. Clarity regarding international trade is presented in detail. See also Priority Action 4 regarding NEMA.	
Assessment Process	•	Accused of bias towards economic benefit over environmental cost.	RES now provides more clarity. ES acknowledges the difficulty of combining social, economic and environmental values. Appendix G of the ER documents all effects individually by topic.	Section 4.1.
	•	It is difficult to comment on strategic actions and assessment when outcomes can depend on how the mitigation actions are implemented.	SEA is strategic in nature. The process has sought apply appropriate levels of detail. This is acknowledged in the ES.	Section 1.5.3 and 4.5.
Mitigation	•	Mitigation for Policy 2c (i) is unacceptable: the RES should seek to reduce the number of miles over which goods are transported from local sources to international markets.	See Priority Action 2e which replaces the original 2c. Clarity regarding international trade is presented in detail. See also Priority Action 4 regarding NEMA.	Table 4.1
	•	A critical issue is how the mitigation, best practice and recommendations will be incorporated into the final RES. The current SEA is not clear and explicit on this issue and needs to be.	Emda are likely to set up a RES implementation group.	Section 4.5
	•	Re: Biodiversity and Landscape, EN et al recommend that the RES and subsequent implementation plans incorporate the identified mitigation, best practice measures and relevant SEA recommendations in Chapter 8.	RES acknowledges importance of implementation.	Section 4.5

	•	Page 47, Table 7.2: In general, this Table appears rather over-optimistic: the mitigation measures suggested will mostly lead to neutral rather than positive outcomes.	The RES has been expanded considerably to take on board this comment.	Table 4.1
Cumulative effects	•	Cumulative effects of transport are negative; adverse air quality impacts and airport expansion will outweigh beneficial effects cited.	This impact is identified as an outstanding significant adverse effect of the RES.	Section 4.3
Recommendations for Best Practice	•	Amend Best practice measures (bullet point 4): "All developmental activity undertaken as a result of the RES needs to be consistent with SEA objectives and subject to robust project appraisal processes, to ensure it contributes to achieving targets"	The best practice measures will be taken forward as part of the implementation process by a specific RES working group.	Section 4.5
Monitoring	•	Various biodiversity measurements were suggested including monitoring of Regional Biodiversity Targets, recovery of farmland birds, wildlife sites.	Monitoring has been designed to reflect the requirements of the SEA Directive to monitor the	Chapter 5 and Annex 1.
	•	Recommend monitoring CO2 emissions from transportation	significant environment effects of the RES.	
	•	Monitoring of water quality was suggested.		
	•	Further issues which might be included: promoting sustainable construction, including energy efficiency; encouraging industry to produce consumer goods with built-in energy efficiency.		
	•	There is a need to monitor the 'protect' element of the objective. This can be achieved by monitoring the non-statutory Sites of Nature Conservation Importance (SINCs, SNCIs) and statutory SSSI's affected by development.		
	•	The landscape monitoring should seek to assess the extent to which changes in underlying landscape character and quality are the result of economic drivers, and to identify appropriate measures to reduce or mitigate		

	 impacts. Recommended proportion of electricity generated from renewables. 		
Additional research	Aviation studies to examine full impact of air transportation impacts in the region.	Priority Action 5a recommends the establishment of a regional climate adaptation and mitigation strategy/action plan.	Table 4.1
Consultation	 Important to ensure that enough time is made available for the SEA process to assess any changes to the RES as a result of the consultation process. 	Adequate time has been made available.	Chapter 2 and Table 2.1

2.6 Other consultation events

As explained at the start of this chapter, in addition to the statutory consultation regarding Scoping and Environmental Reports, *emda* organised regular meetings and working sessions between *emda* and the statutory consultees. Also, several one to one working consultation meetings have been held with statutory consultees who were willing and helpful participants. *Emda* are grateful to English Nature, the Countryside Agency, the Environment Agency and English Heritage who made time available to contribute willingly and helpfully throughout the SEA process. The individual meetings held with statutory consultees enabled transfer of information to take place and provided the platform for detailed discussion of the process and specific aspects such as the identification of alternatives.

As part of the process to identify alternatives (see below) a RES Consultation Document was prepared for consultation with the public in autumn 2005 for a period of 12 weeks to seek opinion on how initial approaches might work. At the same time as this consultation, two workshops were held with key organisations from across the region to add to the quality and depth of consultation. As well as workshops a series of seminar-style events were held across the region to engage with stakeholders and the wider community. Over 1400 people attended these events. They were extremely successful and served to inform RES policy formulation very effectively.

Integrating Sustainability Considerations into the RES Preparation

3.1 Overview of the SA Process

3.2.1

Best practice methods were used to carry out the SA process, following the stages set out in ODPM guidance. Figure 1.1 illustrates these five stages and their integration into the development of the RES.

This section describes how the stages that led up to the production of the Sustainability Report sought to ensure that environmental and sustainability issues were integrated into each phase of the development of the RES.

3.2 Stage A: Setting the Context and Objectives, Establishing the Baseline and Deciding on the Scope

Stage A1: Identifying other relevant policies, plans and programmes, and sustainability objectives A range of policies, plans and programmes that have a bearing on the RES were identified in order to set the context for the RES. This aimed to ensure that the RES does not directly conflict with environmental, social or economic objectives identified elsewhere. Policies, plans and programmes at international, national and regional scales were identified, several of which contain environmental targets that the RES has an indirect commitment to contribute towards.

3.2.2 Stage A2: Collecting baseline information

The collation of social, economic and environmental data relating to the region helps to assess the current state of the environment, identify future trends and predict what effect the RES policies might have. Baseline data was collected on the following SA/SEA issues, which take account of the requirements of the SEA Directive:

- air quality;
- biodiversity, flora and fauna;
- climate;
- cultural heritage;

- economic considerations;
- human health;
- landscape and townscape;
- material assets;

- social considerations;
- · transport; and
- soil and contaminated land;
- water.

A summary of this data is included in Table 4.1 of the Final Draft Environmental Report while full details of the baseline data can be found in Appendix B of the Report.

3.2.3 Stage A3: Identifying sustainability issues and problems

Analysis of the baseline data allowed key sustainability issues to be identified. This helped to set the scope of the SA/SEA thus ensuring that resources were accurately directed at assessing what impact the RES would have on the sustainability issues that are most important to the region.

3.2.4 Stage A4: Developing the SA/SEA framework

Objectives form the basis of the SA/SEA framework by providing criteria against which the environmental, social and economic effects of the RES can be tested. The development of the objectives drew on:

- the results of the baseline survey;
- the identification of sustainability issues;
- the definition of the environment in the SEA Directive;
- sustainability objectives identified in the review of plans, programmes and policies; and
- guidance from emda and consultees.

Table 5.1 in the Final Draft Environmental Report lists the SA/SEA objectives.

3.2.5 Stage A5: Consulting on the scope of the SA/SEA

A Scoping Report was published in September 2005. This was followed by a five week consultation period to help to determine the scope of the SA/SEA and the level of detail required in the Final Draft Environmental Report. Collaboration during scoping workshops led to the development of targets and indicators which could be used to measure the performance of the RES against each objective. See Chapter 2 in this Statement for further detail on consultation.

3.3 Stage B: Developing and Refining Options and Assessing Effects

Stage B1: Testing the RES objectives against the SA/SEA framework. The SA/SEA objectives were analysed to assess their compatibility with each other. The results of this analysis are shown in Appendix D of the Sustainability Report.

The SA/SEA objectives were also compared with the ten RES strategic priorities; the results of this analysis are shown in Appendix E of the Final Draft Environmental Report. This analysis enabled potential conflicts between the RES and environmental, social and economic conditions to be identified and born in mind as part of the assessment process.

3.3.2 Stage B2: Developing RES options

3.3.1

A statutory part of the SA/SEA process is the development of alternative ways of achieving a plan or programme. This allows authorities to decide whether there are ways of achieving similar outcomes with reduced adverse environmental, social and economic effects.

A consultation document (published in October 2005) to inform development of the RES contributed to the identification and development of reasonable alternatives. Likewise the development of the Intervention Framework (see 1.5.4 above) was another means of identifying alternatives. This approach enabled a wide range of potential options to be identified. Comments in relation to alternatives from the public came through during the autumn RES consultation period. *Emda* policy makers contributed through the comprehensive and innovative Intervention Framework. This approach is novel and effective and will be recommened to other RDAs for future SEAs.

The identification of alternatives in this way led to the identification of different reasonable alternatives (as required by the SEA Directive) and allowed the autumn to be used as a period for identifying, predicting and assessing alternatives. Two key lessons came our of this approach:

- this method helps lead to the identification of reasonable alternatives;
- (ii) alternatives are borne out against an initial raft of potential policies as opposed to a more restricted assessment procedure which might have limited itself to assessment at a scenario level.

In accordance with best practice and Government guidance, all RES policies proposed in the RES Consultation Document (January 2006) were compared with the 'business as usual' scenario. That is, considering the environmental effects of continuing with the present RES. Appendix F of the Final Draft Environmental Report documents the results of this assessment process.

A key part of the consultation process which helped inform alternatives were the two comprehensive consultation workshops held in the autumn which included Halcrow presentations to invited audiences of public and private attendees, and, individual consultations with the statutory consultees (see Table 2.1 above). Direct engagement in this way was found to be an excellent way of promoting the SEA concept to people who were new to the process and enabled Halcrow to gain clear perspective of the key sustainability issues at a stakeholder level. This, when combined with the quantitative and qualitative data collected through the baseline process (see 3.2.2 above) provided multi-dimensional approach to the identification of alternatives.

3.3.3 Stage B3: Predicting effects

The assessment methodology was designed and delivered in conjunction with *emda* and Halcrow. The effects of the different policies on environmental and sustainability factors were then predicted by comparing each potential RES policy with the SA/SEA objectives and baseline. This was called a preliminary assessment (see Appendix F in the Final Environmental report). The traffic light system designed for this process enabled a readily accessible means of illustrating potential sustainability effects. The presentation of these results in progressive tabulated columns introduced transparency and evidence of the assessment decision making trail.

3.3.4 Stage B4: Evaluating effects

Following the preliminary assessment, a detailed assessment was performed on the seven policies that had been identified as having significant potential adverse effects on the SA objectives and baseline. A Detailed Assessment Matrix (shown in Appendix G of the Sustainability Report) was used to systematically test the effects of the policy against each SA objective and related baseline conditions in turn. This allowed specific areas of conflict to be identified between the policy and the SA objectives.

Cumulative, synergistic and secondary effects were also assessed (see Appendix H in the Final Draft Environmental Report).

3.3.5

3.5

Stage B5: Considering ways of mitigating negative effects and maximising benefits Mitigation measures were developed at the same time as the detailed assessment, to resolve conflicts between the six potentially adverse policies and the SA objectives. Mitigation seeks to reduce, and if possible remove, adverse effects. In addition to prescribed mitigation measures, a general best practice section was produced to identify principles of best sustainability practice that could be weaved into the RES at appropriate places.

3.3.6 Stage B6: Proposing monitoring measures

Monitoring of the potential effects on the environment that the RES might have is vital to ensure that:

- Requirements of the SEA Directive are met;
- the predictions of the effects of the Strategy are accurate;
- the Strategy is contributing towards the desired sustainability objectives;
- the mitigation measures are performing as well as expected; and
- there are no unforeseen negative environmental, social and economic effects.

3.4 Stage C: Preparing the Environmental Report

The Environmental Report was prepared between December 2005 and January 2006. It was published, in January 2006, at the same time as the Draft RES and titled Final Draft Environmental Report since it was a consultation document in a format that could be changed following consultation if need be.

Stage D: Consulting on Preferred Options and the SA Report

3.5.1 Stage D1: Public participation on the report; and Stage D2: Appraising significant changes.

The Final Draft Environmental Report was issued for consultation with the public for a period of 12 weeks between January and April 2006.

Stage D3: Decision making and providing information. All findings have been considered as part of the Draft for Government RES.

3.6 Stage E: Monitoring

Chapter 5 of the Statement outlines the approach to monitoring.

4 Incorporating SA Results into the Final RES

4.1 Changes to the RES Priority Actions

The SA process is designed to incorporate environmental, social and economic considerations into plans and programmes. For this to happen, decision-makers need to take account of the Environmental Report and its recommendations. This Statement has a statutory duty to document how this has been done.

Following the SA/SEA consultation, the Draft for Government RES has been amended to address comments raised. Table 4.1 documents the changes that have been made to priority actions. In many cases the priority actions have been expanded to provide detail in response to consultation. The table is presented with subheadings showing key issues that have been amended, where these can be found in the text of the Government RES and which SEA Objectives are relevant. Note that the Priority Actions are not reproduced in full. To see the full detail of all priority actions see the Adopted RES (July 2006).

One important general comment made in relation to the assessment process and the presentation of combined social, economic and environmental effects raised the difficulty and potential obscurity of individual effects on the environment in particular. The comment relates to table 7.2 in the Environmental Report. *Emda* acknowledge that the best way of presenting these findings in the future is not to attempt to combine the results of the detailed assessment tables (Appendix G) which, in its own right, serves to illustrate effects of proposed RES actions on individual SA/SEA Objectives. The revised RES priority actions and in particular the identification of residual adverse effects (see 4.3 below) seeks to address this particular issue. Combined summation of social, economic and environmental effects will not be presented in this way in the future.

Table 4.1: RES changes prompted by SA/SEA consultation feedback

Change made to RES	Page Reference in RES text & relevance to SA/SEA Objectives
Cultural and historic assets: Targeting growth of creative and cultural industries	p70
Priority Action 2g includes recognition of the contribution that cultural and historic assets can make to the economy. It identifies the importance of protecting, conserving and enhancing their contribution.	SA/SEA Objectives 1, 2,5 9 & 15
Resource Management: Resource efficiency through effective use of technology and management practices	p. 80
Priority Action 3c recommends the introduction of a range of resource efficiency business support measures that enable businesses to adopt leading best practice related to waste, energy, water and materials.	SA/SEA Objectives 3, 8, 10 & 13
Sustainable Building Design: Development of land and property	p. 81
Priority Action 3d encourages sustainable building design.	SA/SEA Objectives 3, 10 & 11
<u>Transportation</u> : Improve transport connectivity and accessibility	p. 97
Priority Action 4 sets out actions to enhance the accessibility and integration of transportation services and the network across the East Midlands. Potential adverse impacts of this are highlighted in the Final Draft Environmental Report. This policy has provided clarity and recognition of the opportunities to contribute to environmental, quality of life and wellbeing issues by implementing demand management measures and including consideration of access to recreation, sport and cultural facilities.	SA/SEA objectives 1, 2, 3, 4, 11, 12 & 14
Airport: Maximise benefits of Nottingham East Midlands Airport and Robin Hood Airport	p. 97
Emda recognise that the Airport is vital to the economy and market of the East Midlands. The Final Draft Environmental Report identifes the potential adverse effects of this, particularly in relation to climate change.	SA/SEA Objectives 1, 2, 3, 4, 11 &
Priority Action 4 recognises the need to address and monitor key environmental issues to help secure long-term sustainable growth.	12

Climate change: Adaptation to climate change	p. 100
Priority action 5a seeks to ensure that public and private sector leaders understand and respond to the impacts of climate change by developing a regional climate change adaptation and mitigation strategy/action plan; and providing support to businesses to undertake climate change risk analyses.	SA/SEA Objective 11
Energy Demand: Reducing the demand for energy and resources	p. 100
Priority action 5a seeks to ensure that the need for energy is and resources is minimised.	
	SA/SEA Objectives 3, 8 & 11
Renewable Energy: Utilising renewable energy technologies	p. 100
Priority action 5b aims to maximise the economic and environmental benefits of renewable energy technologies by promoting their development and deployment through a regional renewables investment plan; promoting demand for and showcasing renewables technologies; and supporting supply chain development to ensure regional economic benefit from renewables investments.	SA/SEA Objectives 3, 8 & 11
Carbon Management: Exploiting low carbon technologies	p. 100
Priority action 5b seeks to ensure that businesses are well placed to exploit the opportunities presented by the growing global marketplace for low carbon products and services. This will include regional awareness raising and communications campaign; provision of dedicated low carbon business support; and creating stronger linkages between the private sector and Higher Education Institutions active in low carbon research and development.	SA/SEA Objectives 3, 8 & 11
Energy & Waste: Energy and Waste Capacity	p. 103
Priority Action 5c promotes the development of a more secure, diverse and sustainable energy and waste infrastructure and innovative approaches to providing energy and waste services within the East Midlands economy.	SA/SEA Objectives 3 & 10
Environmental Protection: Environmental infrastructure	p. 106
Priority Action 6a seeks to develop and promote innovative and sustainable approaches to supply and demand management (relating to travel, energy, water and materials) to reduce pressures on environmental infrastructure.	SA/SEA Objectives 3, 8 & 13
Environmental Protection: Sustainable construction	p. 106
Priority Action 6a seeks to ensure that investments in the built environment integrate climate change considerations.	SA/SEA Objectives 3, 10 & 11

Environmental Protection: Cleaner production processes	p. 106
	p. 100
Priority Action 6a supports the development and adoption of cleaner production processes and shift consumption towards goods and services with lower environmental impacts.	SA/SEA Objectives 3, 8 & 13
Environmental Protection: Improve damaged environments	p. 109
Priority action 6b has been expanded to encourage sustainable agriculture which enhances and protects the countryside and protects the region's biodiversity.	SA/SEA Objectives 7 & 15
Environmental Protection: Protect and enhance green infrastructure	p. 109
Priority action 6b introduces greater clarity by seeking to protect and enhance green infrastructure at the local and regional levels to contribute to more sustainable communities and enhance quality of life.	SA/SEA Objectives 5, 7, 14 & 15
Employment Sites: Secure the quality and supply of employment sites	p. 114
Priority Action 7b has introduced the appropriate use of EIA to this policy.	
	SA/SEA Objectives 2, 4, 7,9, 10, 12 & 13
Infrastructure provision: Infrastructure for employment related schemes	p. 114
Priority Action 7b encourages the use of Environmental Impact Assessments (EIA) to identify potential environmental impacts and environmental capacity studies have been introduced to this policy.	SA/SEA Objectives 2, 4, 7,9, 10, 12 & 13
Housing: Supporting infrastructure for Housing growth	p. 116
Priority Action 7c seeks to ensure provision of transport, economic, cultural, and community infrastructure, including green infrastructure, to support the creation of sustainable and integrated communities.	SA/SEA Objectives 5, 7, 14 & 15
Social considerations: Promoting Social Capital	p. 125
Priority Action 8 support initiatives which mobilise existing social capital and create bridges and links between different groups including volunteering opportunities.	SA/SEA Objective 2 and 6
Social considerations: Develop cohesive communities	p. 125
Priority Action 8 supports the development of cohesive communities through Local Area Agreements.	SA/SEA Objective 2 and 6

Health issues: Working with employers to improve the health of the region's workforce

Priority Action 10b: The RES now promotes the importance of a healthy workforce and the role that employers can play. Healthy workforce initiatives are encouraged. Support for those with health barriers.

p. 136

SA/SEA Objectives 1, 5 & 12

Table 4.1 illustrates how the RES now incorporates a broad spectrum of sustainability issues that have been introduced through the SA/SEA process.

4.2 Changes to the RES Contextual Text

In addition to amended priority action several aspects of the supporting RES text which explains the policy context has been amended and expanded to provide clarity. This has been done to reflect consultation comments or in the case of any new policies, provide accompanying commentary on the background details.

4.2.1 Transparency of decision making

Page 14 introduces the fact that a technical paper which details evidence, rationale and options considered for each priority action now accompanies the RES. This paper, which also documents the Intervention Framework, helps provide transparency behind the identification of alternatives.

4.2.2 Climate Change

Page 25 of the RES acknowledges the global influence with local implications of climate change have are having an effect on the economy of the East Midlands. The RES identifies that as a region the East Midlands will need to pay increasing attention to resources and energy efficiency, including exploiting opportunities for alternative sources and new technology development.

4.2.3 Health in Society

Page 29 now recognises that a key aspect of health issues, as well as providing access to public health facilities, the health of society in general will benefit from access to clean air, unpolluted water, healthy food, open spaces, and warm housing. Access to sporting and recreational facilities, more cycle and pedestrian friendly routes and the availability of open space are all recognised as contributing towards positive impacts on health. Good building design and safe roads, and cycling and walking routes are also recognised as being key issues.

4.2.4 Energy Challenge

The Challenges section of the RES now includes a recognition that the in order to offset the effects of global climate change, regional, sub-regional and local changes will need to be made to minimise carbon emissions and maximise resource efficiency. A brand new section on page 29 emphasises the need to move towards a resource efficient low carbon economy based on local supplies to protect and enhance economic wellbeing. The RES recognises that there are clear economic opportunities in this respect.

4.2.5 Explaining the Structural Themes

On page 42, new text provides clarity regarding the fact that growth and wellbeing are built on the foundations of a cohesive society and a good quality natural environment. The RES states that growth should not harm the environment or the society in which we live, but where there may be adverse effects, these must be minimised and mitigated. The RES specifically records that the Strategy provides leadership, through a shared vision, underpinned by agreed priorities and actions, to mobilise all regional partners to deliver coordinated long-term sustainable growth to the East Midlands economy.

On page 43 the three Structural aims are now expanded to include definition of aims. In the case of 'Ensuring Sustainability' (one of the three Structural Themes) the RES states that the aim is: To develop and enhance the region's communities, and its assets of physical infrastructure and the natural environment to ensure they contribute effectively to the region's productivity and economic wellbeing, both now, and into the future.

4.2.6 Explaining the Strategic priorities

On page 44 clarity of strategic priority aims is now published, including information about transformational actions which include detail to explain more transparently the links between Structural Themes, Strategic Priorities and Priority Actions. Full details are published in the RES. For example, in the case of the transport transformation action, information includes:

 Details of proposed transport infrastructure improvements covering improving reliability on key routes for passengers and freight;

- Addresses poor connectivity or capacity to key centres in other regions;
- Improved international accessibility by improving surface access to NEMA and other airports serving the region (including Robin Hood Doncaster Sheffield);
- Strengthening connectivity to mainland Europe by a range of modes including rail via London;
- Supporting regional regeneration and growth by improving access from all
 communities to employment and maximising the impacts of economic
 drivers and growth areas, unlocking investment sites in disadvantaged
 communities, and addressing inequality by improving accessibility; and
- Contributing to environmental, quality of life, and wellbeing indicators by implementing demand management measures, and access to recreation, sport, and cultural facilities.

Transformational actions are long term and specifically designed to illustrate how the strategic priorities should be delivered in the future. Transformational actions may be delivered outside of current RES but nevertheless help shape the direction of the long term RES perspective. These are in addition to, and should not be confused with, the priority actions presented in the RES for each of the ten Strategic Priorities.

4.2.7 Environmental protection and economic use of resources

On page 105, the RES acknowledges the economic resource that the environment represents. The relative low price of the environmental infrastructure resources is acknowledged and the fact that this is changing is recognised. The RES states that part of reducing the pressures on environmental infrastructure will be to deliver a step change in how existing, built infrastructures are maintained and repaired.

4.2.8 Cohesive communities

On page 123, Cohesive Communities (strategic priority 8) is a much expanded section which concentrates on the importance of community cohesion, strong stocks and flows of social capital. Individual wellbeing and economic prosperity.

This is especially relevant to sustainability implications for the region.

This RES supports a commitment to creating an environment where all people and communities have the opportunity to create new and sustainable economic futures and recognises sustainable and cohesive futures do not just rely on economic solutions. The RES has identified the strong connections between economic, social, community, cultural, and environmental considerations that create a local culture of inclusion and participation. With regard to interventions the RES records the need to be mindful of, and actively integrate, these different issues. Social enterprises are seen as an important business model to address social, community, cultural and environmental issues through inclusive entrepreneurial behaviour.

4.3 Assessing the new changes

The two previous sections make reference where appropriate to new impacts and effects that arise as a result of the amended RES. As can be seen, the majority of them lead to improvements in the commitment to sustainability that *emda* have sought to achieve through the SEA and RES consultation processes.

Nevertheless there are still outstanding significant adverse effects that will require monitoring to identify at an early stage unforeseen adverse effects and be able to undertake appropriate remedial action.

Outstanding adverse environmental effects include:

- The policies which support plans for improvement to transportation (e.g. road widening);
- Building proposals (e.g. new employment sites); and
- Development of Nottingham East Midlands Airport.

The RES acknowledges the significant adverse effects of these and these will be closely monitored to minimise impacts and track changes to ensure action can be taken if necessary.

4.4 Forthcoming Actions in relation to significant effects

In the case of those significant effects that remain outstanding, a monitoring schedule has been created. See Chapter 5.

4.5 Best Practice Recommendations and implementing the RES

Chapter 8 of the Final Draft Environmental Report makes a series of recommended best practice measures which are designed to assist with the decision-making principles that are adopted when the RES is implemented. The RES will be delivered through an implementation plan for the region. At the time of writing, it is not anticipated that an SEA will be undertaken. To ensure that the best practice recommendations are considered at every stage of the implementation phase, an *emda* led working group will be set up to translate the best practice measures into the implementation plan.

5 Monitoring

The monitoring requirements associated with the SA/SEA process are recognised as placing heavy demands on authorities with SA responsibilities. For this reason, the monitoring framework focuses on those aspects of the baseline that are likely to be negatively impacted upon, or where the impact is uncertain as a result of adopting the RES. Monitoring is particularly useful in answering the following questions:

- Were the assessment's predictions of environmental effects accurate?
- Is the plan contributing to the achievement of desired environmental objectives?
- Are mitigation measures performing as well as expected?
- Are there any unforeseen adverse environmental effects? Are these within acceptable limits, or is remedial action required?

The purpose of monitoring is to measure the effects of a plan, as well as to measure success against the plan's objectives. It is therefore beneficial if the monitoring strategy builds on monitoring systems which are already in place. To this end, many of the indicators of progress chosen for the RES require data that is already being routinely collected by *emda* or other organisations. It should also be noted that monitoring can provide useful information for future plans and programmes as well as future SAs or SEAs.

emda and partners will need to ensure that monitoring information is appropriate to their needs and is up to date and reliable, and that sources of information are referenced. Moreover, they will need to decide in advance any action that is required to correct unforeseen effects that are highlighted by monitoring results, i.e. what will trigger an alternative course of action or new mitigating measure.

In relation to the adverse environment effects that are anticipated as a result of the RES, the RES includes a comprehensive chart (page 35) of recommended indicators to record progress against proposed actions. This table should be used as part of the monitoring programme as it contributes directly to some of the issues raised in the SEA process such as sustainable transportation.

Monitoring relies on the availability of accurate and relevant data at the regional level. It will be achieved through close partner working and there are a range of avenues open to *emda* in this respect. It is recommended that close working with key organisations, including statutory and non-statutory bodies, with responsibility for the various environmental issues be pursued. Reports should be published periodically as new information becomes available. The existing RES evidence base and planned ongoing work in connection with the collection and analysis of RES targets and measures will provide a good place to deliver the monitoring requirements of this SA/SEA.

The monitoring schedule is presented in Appendix I and includes a range of issues and factors that are deemed relevant to the three significant effects identified as likely to arise during the lifetime of the RES (see section 4.3 above).

Annex I – Monitoring Framework

Objective / Effect to be Monitored	Indicator / information Required	Data Source	Repetition	Trigger for Remedial Action	Possible Action
To encourage diversity amongst communities by building on local skills, resources and shared knowledge.	Economic activity at the bottom decile of local authority districts and Unitary Authorities in the East Midlands.	ONS/ Annual Population Survey	Annual	Where there is no significant decrease in the gap between economic activity in the bottom decile of districts and the regional average.	Review actions under RES and ensure that there is appropriate quality, flexibility and responsiveness to tackle disparities of labour market participation.
To minimise energy usage and to develop the region's renewable energy resource, reducing dependency on non-renewable resources.	Proportion of electricity generated from renewable sources.	DTI renewable energy statistics	Annual	Where data indicates that current levels of electricity generated from renewable sources is not increasing.	Assess extent to which the RES has encouraged an increase in sustainable power generation.
To reduce air pollution and ensure air quality continues to improve.	CO2, NOx, PM10 emissions from road transport.	DEFRA sustainable development indicators	Annual	Where there is an increase in emissions.	Assess extent to which economic development has affected air quality, identify contributing factors and promote appropriate mitigation measures.
To protect, enhance and increase biodiversity across the region.	Achievement of BAP targets.	English Nature	Annual	Where BAP targets are not met.	Assess extent to which economic development has affected targets, identify contributing factors and promote suitable mitigation measures.

Objective / Effect to be Monitored	Indicator / information Required	Data Source	Repetition	Trigger for Remedial Action	Possible Action
To make better use of our resources.	Domestic material consumption and gross domestic product.	DEFRA	Annual	Where the data shows an increasing level of material consumption without a comparable increase in GDP.	Assess extent to which economic development has encouraged sustainable use of natural resources and promote further measures to increase recycling.
To protect and enhance the region's historic environment.	Number of nationally designated sites e.g. Scheduled Ancient Monuments	English Heritage	Annual	Where there is a significant decline in nationally designated sites within the region.	Assess extent to which economic development has affected this resource, identify contributing factors and promote suitable mitigation measures in association with Regional Cultural Strategy.
To reduce waste creation and increase the re-use and recycling of waste.	Waste generated per unit of GVA.	Environment Agency	Annual	Where data indicates that total production is increasing compared to productivity.	Assess extent to which RES has encouraged decoupling of resource use/waste generation from economic growth and promote further waste to work projects.
To better understand the causes of climate change in the region and help reduce the causes and the impacts of climate change.	CO ₂ emissions from industry, domestic, transport sectors (excluding international aviation and shipping).	DEFRA	Annual	Where data indicates that emissions levels are increasing.	Assess extent to which economic development has contributed to increased emissions, identify contributing factors and promote further measures to manage and reduce emissions.
To make efficient use of existing transport infrastructure, and encourage modal shift to sustainable integrated forms of transportation.	% of population walking, cycling or using public transport as main method of travel to work.	DFT/ RTS/ ONS	Annual	Where trends suggest increasing car use has implications for congestion, pollution and quality of life. Accessibility may also be the key issue.	Investigate whether further action should be taken under RES to connect people to opportunity.
To protect and enhance the quality of the region's ground, river and marine waters.	Proportion of total river length of 'good/ fair' chemical and biological quality.	Environment Agency	Annual	Where proportion falls against national trends. (UK Government Sustainable Development Framework Indicator).	Assess extent to which economic development has affected target via influencing pollution levels, identify contributing factors and promote appropriate mitigation measures.
To maintain and enhance the character, quality and diversity of landscapes and townscapes.	Change in landscape quality within region.	Countryside Quality Counts (CA)	Annual	When some changes occur that are inconsistent with character (amber rating within QCC indicator).	

Objective / Effect to be Monitored	Indicator / information Required	Data Source	Repetition	Trigger for Remedial Action	Possible Action
To avoid flood risk and exacerbation of flood risk.	Proportion of developments that take place in the flood plain against Environment Agency Advice.	Environment Agency	Annual	When RES initiated developments are proposed within flood plains.	EIA.