

**DERBYSHIRE COUNTY COUNCIL
ENVIRONMENTAL SERVICES
DEPARTMENT**

**LOCAL TRANSPORT PLAN No.2
2006-11**

**STRATEGIC ENVIRONMENTAL
ASSESSMENT**

SCOPING REPORT.

January 2005

Contents

Section 1	Introduction
Section 2	Scope & key Stages of the SEA
Section 3	Context of the SEA
Section 4	Outline of LTP & SEA Options
Section 5	Suggested SEA Methodology
Section 6	Suggested SEA Monitoring
Section 7	Proposed structure of Environmental Report

Glossary of terms

Appendices	(separate documents)
One	Policies, plans and programmes of relevance to SEA
Two	SEA Objectives, indicators and targets
Three	Baseline data availability
Four	Issues, measures and potential options.
Five	Assessment of current and future baselines
Six	Consultation responses
Seven	List of Scoping Report consultees

SECTION 1: Introduction

1.1 In March 2006 we have to submit our second Local Transport Plan, (LTP2). In producing this plan we have to undertake a Strategic Environmental Assessment, (SEA). This is a statutory requirement, arising from an EU Directive (2001/42/EC). The objective of this directive 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...with a view to promoting sustainable development”*.

1.2 The directive applies to plans and programmes whose formal preparation begins after July 21st 2004, or to plans commenced before that date whose formal adoption will not be completed by 21st July 2006. Government guidance states that Local Transport Plans are subject to this directive.

1.3 Put in simple terms, each plan and any resultant programme has to be assessed against its likely impact on the environment. As a first step, we have produced this environmental scoping report which;

- sets out the procedure the authority intends to adopt,
- identifies the data sources and requirements
- the methodology for incorporating these into the SEA.
- Makes an initial assessment of the environmental baseline.

1.4 In accordance with the Directive, there has been consultation on this scoping report with the statutory environmental agencies. We widened the scope of the consultation to include Government Office for the East Midlands, district and borough councils in Derbyshire, the National Park Authority and neighbouring LTP authorities. We did not consult interest groups or the general public at this stage. In carrying out the consultation we agreed to;

- document all responses,
- consider any necessary changes,
- document reasons for our decisions and
- circulate the final document to consultees and make it publicly available.

1.4a This document is the revised and final version of the Scoping Report, incorporating the comments of those consultees who responded. Appendix 6 of this report documents all the responses received and sets out the County Council's response to those comments. Paragraphs introduced into the Scoping Report as a result of consultation have a letter suffix (like this paragraph).

1.5 Having revised the methodology on the basis of the consultation responses and in the light of the available data we have now established an initial environmental baseline which can be refined and from which the plan proposals can be measured. The next stage is to develop and examine a

number of “reasonable” options from which a preferred option will be chosen. Our initial thoughts on these options are contained in Appendix Seven to this report. For each of these options we have to assess the environmental implications and document our reasons for choosing certain measures and programmes. The result will be a Provisional LTP and an accompanying Environmental Report. Both of these will be subject to a wide consultation. As with the Scoping Report, responses will be documented, suggested changes considered, reasons for decisions documented and respondents informed, culminating in the production and submission of the Final LTP2 at the end of March 2006.

1.6 Consultation, documentation and feed-back are vital parts of the SEA process. Although the previous LTP was subject to an environmental appraisal, the SEA will ensure that environmental issues are considered in a more comprehensive and transparent way.

A new requirement

1.7 Strategic Environmental Assessment is a new legal requirement for LTP's, brought about as a result of European Directive 2001/42/EC. This Directive was incorporated into UK law on July 20th 2004. SEA applies to Local Transport Plans as well as to land use and spatial plans. The directive requires an assessment of the effects of the Local Transport Plan on the environment. The directive is commonly known as the Strategic Environmental Assessment (SEA) directive. The objective of SEA is set out in paragraph 1.1 above. SEA is designed to put sustainable development and the environment at the heart of transport planning. Successful, thriving communities need to work with, not against the environment.

1.8 The main requirements of SEA are:

- The publication of an Environmental Report, which will set out significant environmental effects of the LTP and suggest means whereby any adverse effects can be mitigated.
- Consultation on the draft LTP and the related Environmental Report.
- Clearly stated results of consultation and an explanation of how these consultation results have been taken into account in deciding the final LTP.

1.8a As an authority classed as “Excellent”, Derbyshire does not have to produce an LTP. For various reasons, we have decided that we will produce an LTP. This has implications for the SEA as well. Examination of the EU Directive indicates that, if the Local Transport Plan is being produced on a voluntary basis, there is no requirement for an SEA. However, the County Council considers that it would be perverse if an authority holding “Excellent” status and containing some of the finest landscape in England, avoided undertaking an SEA because of a legislative quirk. We have therefore decided to undertake SEA on our LTP.

The importance of SEA to the LTP

1.9 Strategic Environmental Assessment is a vitally important piece of work, designed to integrate environmental considerations into the preparation, decision-making and adoption processes of the LTP. The policies and programmes of the LTP have to be examined against a series of environmental criteria and their effects evaluated. In producing an LTP the County Council will have to consider alternative scenarios and evaluate them through the SEA process. The County Council will be expected to show that the chosen policies (and resultant programme) give a high level of protection to the environment and offer more sustainable and effective solutions than hitherto. The background to and reasons for inclusion of any programme or measure will have to be documented.

The Scoping Report, its purpose and structure.

1.10 The purpose of this Scoping Report is to identify the breadth of the SEA, the methodology we intend to use, the availability of data that may be of relevance and the relationship between LTP and other strategies, policies etc affecting the environment. In the course of this report we will set out;

- The proposed scope of the SEA in terms of the geographical area covered, the LTP time frame and the technical approaches.
- Our approach to assessment, including our approach to mitigation.
- How we intend to establish the environmental baseline situation for the SEA
- Proposed SEA objectives, relating these to other plans and programmes that are relevant
- An overview of likely options for consideration in the SEA
- Dealing with risk and uncertainty
- The proposed structure of the Environmental Report and an overview of the programme for the SEA.

1.11 The Scoping Report is structured as follows;

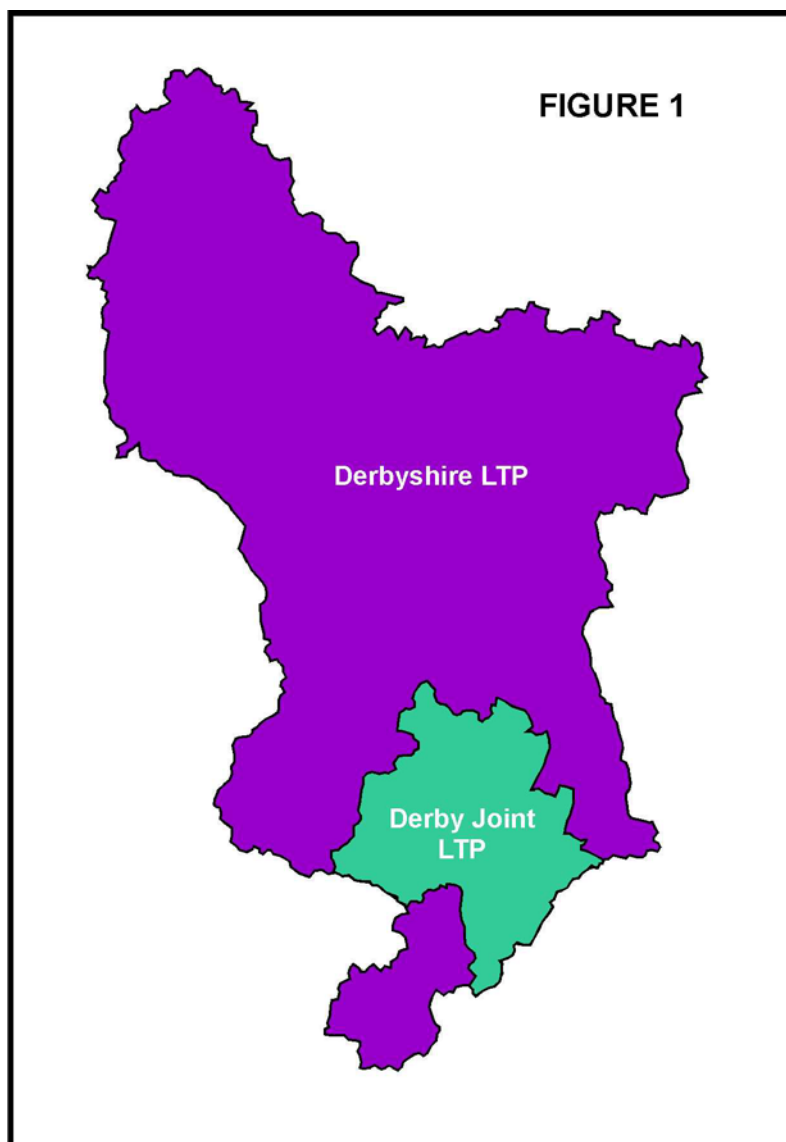
- Section 1 is the introduction
- Section 2 outlines the scope of the SEA and the key stages in the SEA programme.
- Section 3 sets the context of the SEA, drawing upon objectives from other relevant plans and programmes and with reference to baseline conditions.
- Section 4 outlines the key options to be considered in the LTP and the SEA.
- Section 5 explains the methodologies that we will use as part of the SEA process
- Section 6 outlines the monitoring we intend to undertake as part of the SEA and subsequently
- Section 7 sets out the proposed structure of the Environmental Report.

Consultation on the Scoping Report.

1.12 The Department for Transport's (DfT) guidance on SEA identifies four statutory environmental agencies that have to be consulted on the Scoping Report. These are the Countryside Agency, English Heritage, English Nature and the Environment Agency. We have also consulted GOEM, The National Park Authority, our constituent borough and district councils and adjoining LTP authorities, plus a number of internal consultees, totalling 75 in all. The full list of Scoping Report consultees is given in Appendix Seven.

The LTP area.

1.13 The Derbyshire LTP covers the whole of the administrative county, except that part which falls within the Derby Joint LTP. The boundary is shown on Figure 1. A separate LTP and SEA is being produced for Derby City and the surrounding rural area.



Vision and Objectives.

Local Transport Plan objectives

1.13a The transportation policies for Derbyshire have been set out in a wide range of documents as appropriate. These include:

- Structure Plans, which cover land use planning aspects at County/Unitary Authority/National Park Authority level;
- Derbyshire County Council subject-specific strategies (e.g. public transport, freight). Some of these have been prepared jointly with Derby City Council;
- Local Plans, which cover land use planning at District/Borough/National Park Authority level
- Local Transport Plans, which incorporate comprehensive five year programmes.

1.13b The integration of elements of transport and land use planning is seen as central to the new land use/spatial planning regime. The table below shows the relationship between land use/spatial planning and transport planning.

East Midlands Regional Planning Guidance to 2021 (to develop into the Regional Spatial Strategy) - incorporates the Regional Transport Strategy	
SPATIAL PLANNING	TRANSPORT PLANNING
Local Development Frameworks – prepared at District/Borough/Peak District National Park level	Local Transport Plans – prepared at County level

1.13c County Councils will no longer produce Structure Plans, and existing ones will be phased out. There will be a single tier of Local Development Frameworks in place of Structure Plans/Local Plans and Unitary Development Plans. Accessibility is seen as a key consideration in drawing up the Local Development Frameworks.

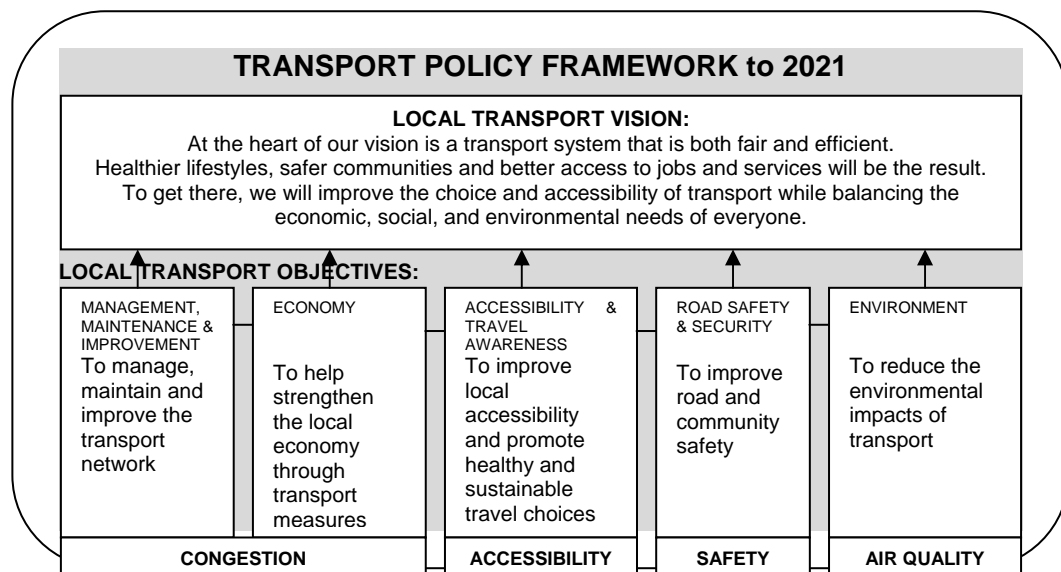
1.13d Effective relationships will need to be developed between Local Development Frameworks and Community Strategies. Community Strategies have to be prepared following the Local Government Act 2000. These are multi-agency strategies developed at local level. Their aim is to promote or improve the economic, social and environmental well-being of their area, with a view to enhancing the quality of life for local communities, and contributing to the achievement of sustainable development.

1.13e With an increasing role for Regional Transport Planning, the Central/Local Government shared priorities for transport, and the corporate/multi-agency context (i.e. Council Plan and Community Strategy), the situation has become increasingly complex at local level.

1.13f To simplify the basis for the Local Transport Plan, a draft local transport policy framework has been developed (see Figure 1.2 below). This consists of a local transport vision and five local transport objectives. The objectives have been informed by an analysis of international, national, regional and local influences which cover transport and land use in relation to environment, economy and social factors (e.g. health, social inclusion). They can be used as a basis for deciding priorities, actions, and local target-setting, and as a consistent framework for decision-making.

1.13g The core purpose of the framework is to make overall progress towards sustainable development and improved quality of life. Sustainable development is about making economic, social and environmental progress in such a way that we achieve 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs'. This is the so-called 'Brundtland definition' of sustainable development, taken from *Our Common Future* (The Brundtland Report) – Report of the 1987 World Commission on Environment and Development. Oxford University Press 1987. ISBN 0 19 282080 X. This means taking a longer-term view than the LTP five-year planning implementation scale. It is more appropriate to consider a timescale to coincide with the Regional Planning Guidance for the East Midlands, which sets its sights towards 2021.

Figure 1.2 Derbyshire Integrated Transport Policy Framework (Draft)



1.13h Table 1.1 below illustrates how these objectives link with Central Government requirements.

Table 1.1: Relationship of Derbyshire’s transport objectives to Central Government requirements and the Central/Local Government “shared priorities”.

Derbyshire’s transport objectives:	Central/Local Government shared priorities (improve public transport, access to jobs/services, reduce problems of congestion, pollution and safety)	Health objectives (reduce death rates due to accidents, heart disease and strokes)	‘Quality of life’ objectives (sustainable development)		Transport Objectives				
			Improve air quality	Improve choice, access and reduce need to travel	environment	safety	economy	Accessibility	Integration
To manage, maintain and improve the transport network	4	4			4	4	4	4	4
To help strengthen the local economy through transport measures	4						4		4
To improve local accessibility and promote healthy and sustainable transport choices	4	4	4	4	4	4	4	4	4
To improve road and community safety	4	4				4			4
To reduce the environmental impacts of transport	4	4	4	4	4			4	4

1.13i The Delivery Framework will then consist of priorities to deliver the objectives, and actions, which are linked with key outcome performance indicators and targets.

1.13j The Guidance for the second Local Transport Plan (December 2004) suggests that “all local authorities should maintain, review and update a local transport strategy.... they deal with principles and objectives, rather than schemes and targets.’ This is seen as the local transport policy framework described above.

1.13k In considering a five-year programme for transport measures, the question that has to be answered is not one of basic policy, but rather the

interpretation of these policies as they apply to the various parts of the county and modes of transport. The draft Guidance advises that “the purpose of the Local Transport Plan is to set out how this strategy translates to a policy implementation programme, over a particular five year period.”

1.13L The Environmental Report must therefore identify, describe and evaluate the likely significant environmental effects of implementing the plan or programme and “reasonable alternatives” taking into account the objectives and geographical scope of the plan or programme. When different options are considered, the idea is to explore different ways of achieving the Plan’s objectives (see section 4.2).

1.14 The County Council’s vision for transport is stated in Figure 1.2 above.

1.15 This Vision coincides with the Government’s five transport objectives, (Accessibility, Economy, Environment, Integration and Safety) and with the four Shared Priorities, (Accessibility, Air quality, Congestion and Safety), as demonstrated in Figure 1.2 and Table 1.1. In addition, the County Council has other objectives which impinge on transport policy and which seek to convert the Vision into reality. These are set out in the Council Plan and the Service Plan and are as follows:

- To increase recycling
- To protect and enhance the local environment
- To control developments and land use in the county
- To improve access to leisure, recreation, information and culture
- To strengthen the local economy and promote neighbourhood renewal

Section 2: Scope and key stages of the SEA.

Introduction

2.1 The second LTP is designed to produce a transport strategy and a five year programme covering the period 2006-11. As part of the preparation of LTP2 and the accompanying SEA we will also look at a longer time period covering the years from 2011 to 2021. In the case of the 2006-11 period, which is covered by LTP2, the SEA will be undertaken in accordance with the procedures specified in DfT's 2003 TAG Unit 3.3 (The Environment Objective) and the SEA methodology specified in DfT's 2004 TAG Unit 2.11. On the assumption that the LTP does address later periods (2011-21), we will only undertake appraisal according to DfT 2003 TAG 3.3. If this is done, it will be reported in the Environmental Report along with a summary of the findings.

Geographical Area covered.

2.2 The area covered by this SEA comprises the greater part of the administrative county of Derbyshire as shown on Figure 1.1. This excludes Derby City Council's area and parts of Amber Valley Borough, Erewash Borough and South Derbyshire District Councils' areas. These form part of the Derby Joint LTP area and are subject to a separate SEA. The nature of transport is that its effects do not stop at political boundaries, so where necessary, the SEA will assess environmental impacts beyond the county boundary. The County Council will also expect neighbouring authorities to assess the environmental effects of their policies and programmes where these impact on Derbyshire. Where this occurs the Derbyshire Environmental Report will make reference to the issues involved and the County Council will expect the relevant authority to take appropriate mitigation measures to minimise effects in Derbyshire.

Timeframe of the SEA

2.3 The SEA will be carried out in most detail for the five-year period from April 2006 to the end of March 2011, i.e. covering the LTP2 timeframe. As mentioned above, there will be an examination of a longer time period (to 2021), but this will be in less detail. For the 2006-11 period, we will assess a base case scenario, consisting of a prediction of environmental changes in the absence of any transport measures, other than routine maintenance. Detailed study of options, i.e. future year scenarios with various transport measures implemented, will also be for the 2006-11 period.

Technical approach

2.4 This sub-section covers the environmental topics to be considered in the SEA. Basically, these follow the list laid down in Schedule 2 of the Environment Regulations (SI 2004 No.1633 "The Environmental Assessment of Plans and Programmes Regulations 2004"). The SEA has to assess likely

significant environmental effects of any/all the proposals and options in the plan. The topics to be covered are:

- Air,
- Biodiversity, fauna and flora
- Climatic factors,
- Cultural heritage, (including archaeological and architectural heritage)
- Human health,
- Landscape,
- Material assets
- Population
- Soil
- Water.

2.5 The SEA also has to identify inter-relationships between these factors, and, where appropriate consider, the “secondary, cumulative, synergistic, short, medium and long-term, permanent and temporary, positive and negative effects of the above topics”.

2.6 In considering the technical approach to the SEA we are reliant on the guidance appearing in DfT TAG Unit 2.11, which bears a strong relationship with the Government’s “New Approach to Transport Appraisal” (NATA). NATA requires assessments of the five national transport topic areas, namely; accessibility, economy, environment, integration and safety. There are overarching objectives for each of these and NATA also sub-divides these five into a number of sub-objectives. The SEA guidance identifies the relationship between the NATA objectives and those of SEA (see Figure 2.1 below).

Notes to Figure 2.1.

- i) *Population refers to effects on people and their quality of life. Many NATA sub-objectives relate to this topic. See Section 5 below.*
- ii) *The NATA air quality indicator only relates to local air quality. Issues of regional air quality require a separate objective to be formulated and this may require cross boundary/inter authority working.*
- iii) *Biodiversity also covers geological issues*
- iv) *Community severance in NATA only relates to human communities. Community severance relating to flora and fauna will be dealt with under Biodiversity.*
- v) *These NATA sub-objectives are the closest to the SEA material assets topic, but they do not directly relate. See section 5 below.*
- vi) *Soil is not specifically covered in the NATA sub-objectives. It underlies issues like biodiversity and landscape.*

Figure 2.1 Relationship between NATA objectives and SEA topics

NATA objective	NATA sub-objective	SEA topic
Environment	Noise	Noise, human health, population (i) biodiversity (fauna)
	Local air quality (ii)	Air, human health, population, biodiversity (flora and fauna)
	Greenhouse gases	Climatic factors
	Landscape	Landscape
	Townscape	
	Heritage	Cultural heritage
	Biodiversity (iii)	Biodiversity (iii & iv), flora and fauna
	Water environment	Water
	Physical fitness	Human health
	Journey ambience	Human health, Population
Safety	Accidents	Human health, population
	Security	
Accessibility	Community severance (iv)	Human health, Population
	Access to the transport system	
Economy. No SEA topics directly address the NATA Economy objective, but this will clearly be an issue for LTP2.	Business users and providers, consumer users, public accounts. (v)	Material assets (inc. material and natural resources, raw material, re-used and recycled materials)
	No specific NATA sub objective addresses this SEA topic	Air (regional air quality) (ii)
	No specific NATA sub objective addresses this SEA topic	Soil (vi)

2.7 As SEA of LTP's is in its infancy, the DfT guidance is open to interpretation. The County Council is undertaking this SEA voluntarily (see 1.8a above) and whilst we have sought to follow the Directive and Guidance as closely as possible, there may be elements of this SEA that offer a different interpretation. We explain in Section 5 of this report how we believe certain elements of the SEA should be undertaken and which issues ought to be addressed.

SEA and LTP programme

2.8 The relationship between the production of the LTP and the SEA is set out in Figure 2.2 below.

Figure 2.2: SEA and LTP stages.

SEA stages	LTP stages	Projected dates
Stage A. Identify relevant policies, plans and programmes and their relationship to the LTP	Identify the issues and options. Clarify main LTP objectives	To end August 2004
Stage A. Devise draft SEA objectives, indicators and targets. Collect baseline data. Establish issues and problems. Identify gaps in environmental data and set targets for plugging same.		
Stage B. Identify options		
Stage B. Prepare scoping report		
Stage B. Consult on scoping report		September/October 2004
Stage C. Assess plan options against SEA objectives. Assess consistency against other associated plans, policies and programmes. Choose preferred option. Propose mitigation measures.	Develop draft strategies and "broad-brush" programme options. Prepare Provisional LTP. Approval of provisional LTP and Environmental Report by County Council and submission to DfT. Make plan and SEA information available on web, in hard copy and in accessible formats.	October 2004-July 2005
Stage C. Screen plan policies and proposals. Assess their effect on SEA objectives. Propose mitigation measures.		
Stage C. Propose SEA monitoring process		
Stage C. Prepare Environmental Report		
Stage D. Consult on Environmental Report and draft LTP2		July-September 2005

Figure 2.2 continued

SEA stages	LTP stages	Projected dates
Stage D. Consider consultation responses. Document consultation responses. Consider/suggest possible changes to plan.	Prepare Final LTP2 in light of consultation responses. Notify consultees of changes.	September 2005 to January 2006
Stage D. Integrate environment and sustainability considerations into amendments and modifications to the plan	Notify consultees of intention to adopt plan. Formal adoption by County Council and submission to DfT	January-March 31 st 2006
	Distribute adopted plan to all consultees. Make plan available on web, in hard copy and in accessible formats	March-May 2006
Stage E. Monitor the environmental effects of the adopted plan. Update environmental data.	Monitor the adopted plan.	2006-11

2.9 The various stages of the SEA are amplified in Figure 2.3 below. The Stage letters relate to the DfT guidance.

Figure 2.3: SEA Stages, Activities and Programme

Stage	Activities	Programme
A: Context. Objectives and baseline. This stage is the commencement of the SEA process but elements continue throughout.	Review related plans and programmes	To mid August 2004
	Identify environmental constraints	To mid August 2004 (and post SR consultation)
	Develop draft SEA objectives relating to LTP2 issues	To mid August 2004. Refinement post SR consultation
	Collect environmental baseline information.	To end November 2004
	Identify gaps in baseline information	To end November 2004
	Plug gaps in environmental data	Initial deadline end November 2004 but likely to be ongoing
	Identify initial monitoring arrangements	Initial identification by mid August 04. Refinement post SR consultation
	Assess existing baseline situation	By end January 2005
	Develop and assess future baseline	By end January 2005
	Identify baseline environmental problems	Initial identification by mid January 2005. Refinement during early 2005
B: SEA Scope and developing options This stage uses information gleaned from Stage A	Issue Scoping Report to Environmental agencies for consultation	End August 2004
	Review results of consultation and finalise SEA scope and monitoring arrangements. Issue final version of Scoping Report.	End October 2004
	Develop LTP options and identify related environmental issues	October 2004-April 2005
	Identification of preferred option	April-June 2005
	Reassess monitoring requirements	January – July 2005

Stage	Activities	Programme
C: Assessment and mitigation This stage compares the existing and future baseline conditions with predicted conditions for the various LTP2 options.	Assess and appraise effects of LTP2 options	October 2004-April 2005
	Identify and develop appropriate mitigation measures	October 2004-April 2005
	Assess residual effects of LTP options with mitigation in place	October 2004-April 2005
	Assess monitoring requirements relating to effectiveness of mitigation measures	January – July 2005
D: Consultation	Consult on Scoping Report	September/October 2004
	Public consultation on draft LTP2 and Environmental Report	July-September 2005
E: Monitoring	Identify initial monitoring arrangements	Initial identification by mid August 04. Refinement post SR consultation
	Reassess monitoring requirements in light of preferred option	January – July 2005
	Assess monitoring requirements relating to effectiveness of mitigation measures	January – July 2005
	Instigate monitoring	July 2005
	Annual environmental monitoring report to accompany LTP APR	End of each July 2006-11

Section 3: The context of the SEA.

Introduction

3.1 Figure 2.3 above set out the various activities and programme for the SEA process. This section deals with the various elements in Stage A of that process. We will deal with each of these in turn (though some could reasonably be combined). The Stage A elements are:

- Review related plans and programmes
- Identify environmental constraints
- Develop draft SEA objectives relating to LTP2 issues
- Collect environmental baseline information.
- Identify gaps in baseline information
- Plug gaps in environmental data
- Identify initial monitoring arrangements
- Assess existing baseline situation
- Develop and assess future baseline
- Identify baseline environmental problems

Review related plans and programmes

3.2 A comprehensive review has been carried out covering plans and programmes for all SEA topics. International, European, National, regional and local plans have been reviewed, with the aim of establishing how these might influence LTP2 and, in particular the environmental issues relating to it. Appendix One lists all the plans and programmes considered to be of relevance to the LTP/SEA. In the Appendix we suggest some plans and programmes that seem to be of more relevance to the LTP/SEA than others. We have altered this assessment in the light of consultation responses.

3.3 Many of the international and national plans and programmes have to be incorporated into more local plans and programmes. Where this is the case, the more local objectives are the ones that we have regarded as being the more important. This being the case, the following plans and programmes are regarded as the most relevant ones for the Derbyshire LTP and its accompanying SEA.

National:

- National Air Quality Strategy 2000
- Department for Transport Public Service Agreements (2003-4)

Regional/sub-Regional:

- East Midlands Integrated Regional Strategy (EMIRS) 2000. This sustainable development framework for the East Midlands has four main themes (environment, economy, spatial and social):
 - EM Regional Environment Strategy 2002
 - Sustainability and Biodiversity Priorities for Action in the East Midlands Region EM Region Biodiversity Forum April 1999
 - EM Regional Economic Strategy (Destination 2010) 2003

- EM Regional Planning Guidance 8 (includes the Regional Transport Strategy)
- EM Public Health Strategy 2003

Local:

- Borough and District Council Local Plans and Local Development Frameworks
- Derby and Derbyshire Joint Structure Plan 2001-21 (2001)
- Peak District National Park:
 - Structure Plan (1994) and Local Plan (2001)
 - Peak District National Park Management Plan Strategy 2000-2005

Identify environmental constraints

3.4 As part of the general exercise in environmental data collection we have identified the numbers and extent of the following;

- The various landscape designations, National Park, Special Landscape Areas, high grade agricultural land, green belt and National Forest.
- Conservation areas, listed buildings, historical parks and landscapes, scheduled ancient monuments and historical sites, ancient woodlands, archaeological sites identified on the SMR and the Derwent Valley Mills World Heritage Site.
- The statutory designations SPA, SAC, SSSI, National and Local Nature Reserves, including geological designations, plus non statutory designations, e.g. Regionally Important Geological Sites (RIGS) and Derbyshire Wildlife Sites (DWS).
- Water catchment areas

3.5 Note that none of these are related to “people focussed” environmental constraints, e.g. pedestrian concentrations, air quality or noise.

Develop SEA objectives relating to LTP2 issues

3.6 An SEA objective is a statement of what is intended, specifying a desired direction of environmental change. Objectives need to be in a form that can be measured, i.e. as targets. For example an objective “to improve air quality”, could be expressed as the target, “to reduce air pollution by x% in Air Quality Management Area Y”. We included a set of draft SEA objectives in the consultation version of the Scoping Report. We have now revised these in the light of the results of the Scoping Report consultation and in the light of the Government/LGA shared priorities. The revised SEA objectives appear in Appendix 2.

3.7 The achievement of objectives is normally measured by using indicators and targets. We have not finally decided what targets and indicators should relate to these objectives, but Appendix Two shows our latest thinking on this. As part of the Scoping Report consultation we asked for suggestions on this issue. The following paragraphs set out the suggestions received. They do not cover all areas of the assessment.

3.7a The selection of meaningful indicators is a complex issue and is linked to the assessment process. Clearly, the level of assessment is not going to be as rigorous as that required for the environmental impact assessment of an individual proposal. However, in general terms, it would seem appropriate to provide a measure of the likely impact of different options, whether positive or negative, on a range of assets. These could include the number, % or area of historic buildings, sites and areas, (including locally listed assets), affected, whether in an adverse or beneficial way. The types of changes to be included in the measurement of impacts on an asset might include predicted increases or decreases in traffic flows, changes in the proportions of different types of vehicles, or in noise levels. This could affect the tranquillity of a park as well as the quality of life of residents. Improvements in access by all modes to historic assets, including the World Heritage Site, could also be considered. The removal of traffic from a conservation area would generally be beneficial. However, if it meant that an area was no longer served by public transport or parking restrictions were introduced, this could conversely affect the viability of the area in social or economic terms with a consequent longer term decline. Criteria for determining adverse impacts that would be measured as part of such an indicator now need to be agreed with appropriate officers of the Borough, District or County Council and the National Park Authority.

3.7b Impacts on the historic environment need very careful consideration before we can conclude that effects on individual sites are not strategically significant. This is because individual sites can have regional or national significance, perhaps through scarcity or particular associations, or because the cumulative minor impacts on a range of individual sites needs to be considered. The impact of complete or partial loss and adverse effects on settings as well as possible blight before the plan or programme is commenced also needs to be considered.

3.7c Another suggested approach would be to build in local opinion at an early stage, to provide a more qualitative assessment that informs the development of options. However, we are not aware of an appropriate forum that could be used to collect information on what local people value, though conceivably Citizens Panels could be used in this way. If adopted, this approach would be in line with the Government statement *The Historic Environment: A Force for Our Future*. This points out that “the value a community places on a particular aspect of its immediate environment might be a critical factor in getting that community to engage in local planning or regeneration issues” (paragraph 3.15). Residents could be asked to provide an indication of satisfaction with transport schemes that have already been implemented as a predictive tool or an assessment could be made of current attitudes and values about their local environment. They could be asked whether a place or space is considered important and whether suggested changes are considered beneficial or not. The use of this approach in scheme development will certainly be considered.

3.8 Whilst the SEA directive does not specifically require the use of objectives or indicators as part of the assessment process, they are a recognised way in which environmental effects can be quantified. At this

stage in the process there are clearly gaps in the availability of data. This issue is addressed in paragraphs 3.16-3.18 below. Given these gaps, indicators and targets will need revision as more data is collected and environmental problems and issues identified more clearly.

3.9 The objectives and indicators for the SEA need to be closely aligned to those of the New Approach to Transport Appraisal (NATA). They also need to be closely aligned to those chosen for the LTP itself, if only to reduce the data collection and analysis required.

3.10 Guidance from the Office of the Deputy Prime Minister (ODPM) on SEA, suggests ranking objectives into those that are central to the function of the plan and those which are secondary or merely complement the plan. We sought views on this as part of the consultation on the Scoping Report. We asked whether such ranking is desirable at all and if so which objectives should be regarded as primary and which as secondary. Respondents were divided on this issue, but as responses from the statutory environmental bodies were opposed to the concept, we will not be pursuing it.

Collect environmental baseline information.

3.11 Baseline data provides the means whereby the effects of transport strategies on the environment can be assessed. It also helps to identify existing and potential environmental problems and alternative ways of dealing with them.

3.12 Clearly sufficient baseline data needs to be collected to address each SEA topic area. The data has to be sufficiently robust to show:

- How good or bad is the existing situation
- Whether trends indicate that the situation is getting better or worse
- Existing targets for the particular topic and if so how far adrift is the current situation from these targets
- Whether any particularly sensitive environmental issues are affected
- Whether any problems identified are reversible or irreversible
- Whether any predicted environmental damage can be offset or remedied.
- What significant secondary, cumulative or synergistic effects have there been or are there likely to be.

3.13 As part of the SEA for the LTP we have to address the following topic areas; noise, local air quality, greenhouse gases, landscape, townscape, heritage, biodiversity, water environment, physical fitness, accidents, security, community severance, material assets, soil, access to the transport system, and wider economic impacts. Inevitably this will not be as finely detailed as would be the case in a scheme specific assessment.

3.14 We sought to obtain the following data;

- Road and rail routes (lengths and gradients)
- Traffic volumes for road and rail

- Noise calculation formulae for road and rail
- Number of residential and non-residential properties
- Census data for residential occupancy
- Visitor attractions/recreational sites by scale of use
- Recreational parking provision and use
- Educational sites and number of staff/pupils
- Hospitals and number of staff/patients (including in-patients and an estimate of daily out-patient numbers)
- Vehicle emissions (an estimate of average vehicle emissions by vehicle type would suffice)
- Congestion points on the road network
- Congested sections of road
- The various landscape designations, National Park, Special landscape areas, etc. in map form
- Lengths of non-urban road with street lighting (i.e. speed limit > 40 mph)
- Conservation areas, listed buildings, historical parks and landscapes, landscape character assessment in map form
- The statutory designations SPA, SAC, SSSI, National and local nature reserves, including geological designations.
- For each of the statutory ecological designations, an assessment of their general condition
- Water catchment areas in electronic map form
- Accident data in digitised form
- Car crime and other transport related crime including rail vandalism, in digitised form.
- Designated recreational routes, i.e. those shown on the latest editions of the OS maps, e.g. Trans-Pennine Trail, where these routes cross roads and railways on the level.
- Estimate of material assets used in transport (to apply to mileage run in county).
- Materials we use in the maintenance, improvement and operation of the road system
- An estimate the amount of reused or recycled material we use or which is disposed of by DCC and then reused by others.
- Animal mortality on the road and rail network.
- Information about animal migration routes.
- Examples of severance and fragmentation of a habitat leading to unsustainable plant and animal communities.
- Flood plains (parts of the transport network liable to flooding)
- Scheduled monuments and other archaeological sites identified in the SMR.

3.15 We have investigated the availability of all of these and the results are shown in Appendix Three. It is not practical to include all the data in this Scoping Report, but Appendix 5 gives shows how the data is being used to demonstrate environmental effects. We intend to show results of the analysis and the base data in map and tabular form in the Environmental Report where appropriate. At this stage, we propose to scope out of consideration those topics where data is not fully available, with the exception

of the material assets issues, (where the County Council is responsible for the data), and the railway data, which is essential for a complete modal picture. We intend to continue to seek data on the other topics at a later stage and will incorporate an analysis of these into the Final LTP and Environmental Statement if at all possible.

Identify gaps in baseline information

3.16 As the guidance indicates, collection of baseline data could go on almost indefinitely. The preparation of the second Local Transport Plan and the requirement to submit the Provisional Plan by 31st July 2005 does not allow the County Council the luxury of such an approach. Accordingly we set a deadline of end of October 2004 for data collection, though in practice this continued until the end of November. We recognise that this timescale will not allow us to obtain all the data relevant to the SEA, but it will allow us to identify strategic environmental issues and constraints.

3.17 Appendix Three gives details of the available environmental data and also identifies known data gaps.

Plug gaps in environmental data

3.18 We need to set targets for obtaining the missing data and identify how this data will be incorporated once it has been obtained. Any remaining gaps will be highlighted, their importance assessed and measures to obtain the data (or reasons for not obtaining the data) explained. We sought views on the known data gaps and their importance and received a number of comments. These comments are taken into account in Appendix Three, but certain comments of English Heritage are particularly relevant and are reproduced here.

3.18a In general terms, environmental appraisal should consider the impacts on all designated historic assets. These include the site and setting of Scheduled Monuments and other nationally important remains, Listed Buildings (Grades I, II*, II), Conservation Areas, Registered Parks and Gardens of Special Historic Interest (all grades) and the World Heritage Site, for which the management plan exists. The relative importance of the different grades of listed buildings can be defined as follows:

Grade I – Buildings of exceptional/ outstanding interest;

Grade II* - Buildings of particularly great importance;

Grade II – Buildings of special interest, which warrant every effort being made to preserve them. Any data gaps relating to these assets should be plugged as soon as possible.

3.18b Clearly, the significance of individual buildings will vary and we will seek the advice of relevant Conservation Officers on this matter, although this might be more relevant at the environmental assessment stage for specific schemes.

3.18c It is also important that the historic environment is broadly defined, and potential impacts on non-designated features of local historic interest and value are fully considered since these can make an important contribution to creating a sense of place and local identity. These might include small-scale roadside features such as milestones that might be affected by improvement schemes or bridges and other structures, including canal bridges and railway structures. It is probably not relevant, or even possible, to include consideration of all these aspects as part of the SEA, but they should be considered at the more detailed scheme stage and at SEA stage the data should be sufficiently robust to enable any significant effects to be flagged up.

3.18d In a wider context, urban characterisation and historic landscape characterisation (HLC) studies should be used, to help assess the potential impacts of major schemes, and the cumulative effects of smaller scale projects, on the character of the local townscape and landscape. The lead regulatory body for 'Landscape character assessment' is the Countryside Agency. English Heritage is the lead with respect to historic landscape characterisation.

3.18e Where site-based proposals form part of the LTP that affect a Conservation Area, a Conservation Area Appraisal is an important tool for understanding the likely impact. Again, the strategic nature of a county-wide SEA will preclude detailed investigation of impacts on individual conservation areas, but the data needs to be sufficiently robust to enable any potentially significant effects to be flagged up for future analysis.

3.18f Finally, it should be emphasised that for proposals involving land take, there could be potential impacts on unrecorded archaeological sites or remains, and this should be factored into the appraisal process. In particular, this is relevant for schemes located within river valleys, which can retain important organic archaeological remains and other features of historic interest. The Sites and Monuments Record will be used to advise on the potential for archaeology in different areas of the County, which will then be fed into the strategic assessment.

Identify initial monitoring arrangements

3.19 In paragraphs 3.6-3.10 above, we discussed SEA objectives, indicators and targets. We asked for comments on the objectives set out in Appendix Two and on the targets and indicators. We also asked for views on how the data required for any suggested targets and indicators could be readily collected, obtained and analysed. A set of SEA objectives, amended to take account of comments received, appears in Appendix Two. Appendix Two also contains a set of possible indicators and their respective targets. The objectives have not been developed in response to identified environmental problems, as our view is that objectives should transcend problems. Likewise, programmes should address problems in ways that satisfy objectives.

Assess existing baseline situation

3.20 Work is well under way on this in accordance with the suggested methodology in Section 5 and taking into account changes suggested by consultees. Details of the work undertaken so far, and a number of tabulations, appear in Appendix Five.

Develop and assess future baseline

3.21 Details of the work carried out so far on this topic appear in Appendix Five.

3.22 The 2011 environmental baseline (against which other plan options will be assessed) will be based on the following premises;

- The maintenance regime continues as now
- Vehicle technology does not significantly improve emissions and noise
- There are no schemes, either physical or fiscal to alter the trends in car usage.
- There are no significant land use changes that will influence travel patterns other than those for which planning consent has already been granted.
- Only major transport schemes for which contracts have already been let will be assumed built.

Identify baseline environmental problems

3.23 The identification of baseline environmental problems will follow from the baseline assessments. With the exception of the already designated AQMA's in Bolsover and Erewash districts, we have not been made aware of any specific transport related environmental problems. However, it is understood that there may be similar air quality issues in Chesterfield Borough's area, though not, so far, to the extent that they trigger the designation of an AQMA. There are likely to be other instances of poor air quality in other towns in the county, especially at peak times. Similarly, community severance, traffic noise, perceived and actual safety issues are widespread in the county.

3.24 The "tranquil area" and "light pollution" maps produced by CPRE indicate considerable losses in tranquillity and "darkness" over the past couple of decades. How significant these losses are is open to debate, but there is some evidence to suggest that noise and light pollution does affect animal and bird life. Specific effects are likely to be difficult to assess.

3.25 We asked consultees whether they were aware of any other immediately obvious transport related environmental problems in any of the SEA topic areas. Very few comments were received on this matter and those that were received have been incorporated into the appropriate section of this report.

3.25a. Once the overall environmental baseline has been established we will be in a position to judge the environmental problems caused by transport. Some transport problems, for instance access to rural transport and improving choice in rural areas, are better addressed through accessibility planning rather than through SEA. Similarly maintenance priority issues are not considered to be a matter for SEA, though maintenance methods are. The fact remains that, in a situation where financial resources are finite and unlikely to grow significantly in the near future, there will be a need to prioritise spending and thus all the identified environmental problems will not be tackled within the next LTP period.

Section 4: Outline of LTP and SEA options.

Identification of Options

4.1 An integral part of the LTP and SEA process is the testing of options. This would form part of development of the LTP in any case, but the SEA requires each option to be tested against the various environmental objectives, not just transport, social and economic objectives. The choice of a preferred option from amongst those tested will be a balanced judgement based on the option's performance against a range of objectives, economic and environmental. However, for the purpose of SEA we have to demonstrate that the preferred option meets the terms of the SEA Directive and gives a "high level of protection to the environment" and puts forward "more sustainable and effective solutions". The preferred option has to show what mitigation measures will be put into place to minimise any detrimental environmental effects. The use of the term "mitigation" presupposes that the effects of the chosen programme will be detrimental to the environment and that somehow we have to compensate for this. However, the aim should be to have recourse to mitigation as a last resort. Rather it would be desirable for the chosen programme, and the individual schemes in it, to seek to avoid environmental disbenefits in the first place, and, if possible to incorporate environmental enhancement measures.

4.2 The options being evaluated have got to be "reasonable". The SEA does not have to cover all available options. It has to examine sufficient to ensure that the chosen (preferred) option is environmentally robust, taking into account the objectives and geographical scope of the LTP. Given the time scale for production of the LTP and given the likely future funding, the number of options tested is likely to be very limited. Each one will be based on different local methods of achieving local, regional and national objectives. It is likely that one option will examine whether objectives can be achieved without adding to road capacity, with new road construction being a last resort option.

4.3 The evaluation of the plan options have to be set against a "Do nothing" option, which is described in paragraph 3.22 above.

- The maintenance regime continues as now
- Vehicle technology does not significantly improve emissions and noise
- There are no schemes, either physical or fiscal to alter the trends in car usage.
- There are no significant land use changes that will influence travel patterns other than those for which planning consent has already been granted.
- Only major transport schemes for which contracts have already been let will be assumed built.

4.4 On these bases we will rework the baseline assessment using National Road Traffic Forecast (NRTF) high and low growth estimates, but otherwise using the same base data. This will demonstrate how much the

environmental situation will change over the plan period (2006-11). It is against this that we will assess the other plan options.

4.5 Appendix Four gives details of issues and potential major projects, set out by area. The issues encompass social, economic and environmental matters. The appendix also contains a list of potential measures, gleaned from extensive local consultation, from technical work undertaken by the Environmental Services Department and from the SEA seminar of May 2004. Appendix Four also sets out the likely options for testing.

4.5a It should be noted that work on option development is still ongoing and is unlikely to be completed much before submission of the provisional LTP in July 2005.

Section 5: Suggested SEA methodology.

Interpretation of guidance.

5.1 We suggested in paragraph 2.7 that certain parts of DfT guidance were open to interpretation. This applies especially to issues relating to human health, material assets and population topics.

5.2 DfT guidance on the SEA topics of human health and population indicates a considerable degree of overlap and possible duplication. For instance TAG Unit 2.11 refers to accidents, air quality, noise and physical fitness under both headings. ODPM guidance on SEA suggests that the two topics (human health and population) could be considered together. This seems to be a sensible approach that we intend to adopt.

5.3 Responding to the consultation on the Scoping Report draft, a number of consultees made the point that the SEA process seemed very resource intensive. Although considering the proposed methodology adequate for the SEA, they queried whether it was practical in the timescale. Subject to data availability and time constraints, we propose to undertake the assessment in the following way;

- We will use the recently agreed county road hierarchy and assess the environmental impact of the strategic routes, main distributors and secondary distributors. (This includes all motorway, class A and B roads)
- We will obtain information about the traffic flow, proportion of hgv's and gradient on each of the links in this hierarchy.
- We will also obtain information about the traffic levels on the each of the links in the rail network within the county, including the number of goods trains
- We propose wherever possible to use the NATA definitions and methodologies to show severity of effect, ranging from large adverse effect, through neutral to large beneficial effect.

5.3a The recently produced guidance on SEA and biodiversity, sets out the levels of biodiversity that an SEA should address. The guidance also identifies the likely impacts of different types of plan on biodiversity. (Strategic Environmental Assessment and Biodiversity: Guidance for Practitioners. English Nature and Environmental Agency). The following tables are taken from this guidance and adjusted to take account of Derbyshire's circumstances.

Table 5.1. Levels of biodiversity to be addressed by SEA

Level	Reason for inclusion	Typical impacts, activities or circumstances	Applicability to Derbyshire LTP
Bio-region	Implications for biodiversity within a whole bio-region	Disproportionate effects on one bio-region due to its restricted nature	Not applicable
Landscape	Wide-spread implications affecting relatively large areas, or the distribution and spatial organisation of habitats. (Note 1)	<ol style="list-style-type: none"> 1. Barrier effects restricting species mobility 2. Habitat fragmentation or isolation 3. Widespread disturbance 4. Opportunities to enhance connectivity of habitat 5. Opportunities to buffer or consolidate areas of high biodiversity value 	Likely to be applicable
Ecosystem	Plan may affect environmental quality with possible effects outside the immediate area of influence (Note 2)	<ol style="list-style-type: none"> 1. Pollution of soil, air or water 2. Hydrological changes 3. Impacts on air or water 4. Impacts on species that perform critical roles in an ecosystem, e.g. a top predator. 5. Disruption to the structure and/or function of physical, chemical and/or ecological systems and processes 	Likely to be applicable
Habitat	Plan will alter the amount, quality or distribution of habitat for species (Note 3)	Any impacts on the amount, quality or distribution of semi-natural habitat. (Note 4)	Definitely applicable
Community	Plan may change the characteristic composition of communities (Note 5)	Areas where important communities occur should be identified as "constraints" or as "important for biodiversity". (Notes 6 and 7)	Definitely applicable
Species	The area of influence of the Plan affects species that are known to be declining or generally threatened (Notes 8 & 9)	<ol style="list-style-type: none"> 1. Habitat loss 2. Change in the quality or distribution of habitat 3. Disturbance 4. Pollution 5. Land management changes 6. Changes of spatial arrangement of habitat within the landscape. (Note 10) 	Definitely applicable
Population	Plan may affect locally adapted populations (Note 11)	<ol style="list-style-type: none"> 1. A variety of cumulative impacts could affect a population. 2. Any isolated population of a rare or declining species should be assessed in terms of population status and dynamics 	Possibly applicable Needs detailed data that is not currently available. Difficult to evaluate at County level

Table 5.1 continued

Level	Reason for inclusion	Typical impacts, activities or circumstances	Applicability to Derbyshire LTP
Individual	Plan potentially affects <ul style="list-style-type: none"> individual specimens of rare or protected species. Individual specimens whose taxonomic identity is unclear 	Localised impacts on habitat, e.g. for breeding	Possibly applicable Needs detailed data that is not currently available. Difficult to evaluate at County level
Gene	Plan potentially affects uniquely adapted genetic resources, including rare or declining species, e.g. Red Data Book species	1. Location specific impacts on threatened genetic resources 2. Isolated populations of rare or declining species 3. Locally adapted populations	Possibly applicable Needs detailed data that is not currently available. Difficult to evaluate at County level

Notes to Table 5.1

Note 1. Assessment at the landscape scale is the only way to identify and address cumulative threats and impacts on biodiversity.

Note 2 Assessment at ecosystem level is important where changes in environmental quality at one location could have implications for habitats, communities and species at other locations

Note 3 Assessment at this level is essential for priority BAP habitats

Note 4 This includes land take for transport purposes, disturbance, pollution, fragmentation, and barrier effects.

Note 5 Although usually driven by impacts on individual species, impacts on communities may give early-warning of impacts at the species level. Also, some communities are acknowledged conservation value in their own right.

Note 6 Plant and invertebrate communities are often under-recorded and consequently under-protected.

Note 7 Ecosystem changes often influence community composition

Note 8 Assessment at the species level is essential for key BAP species

Note 9 Species can be useful as indicators and as a basis for monitoring, e.g. using effects on one species to infer possible responses of others

Note 10 SEA for key species should address any possible impacts on their conservation status and distribution. This might include species of high conservation value and species useful as indicators.

Note 11 Local changes in populations may have implications at species level.

Table 5.2 Likely impact of LTP on biodiversity

Impact	Existing network	New schemes
Habitat loss caused by land-take	Not applicable	Applicable
Habitat isolation or fragmentation	Applicable and increasing with traffic growth	Applicable
Alteration of water or hydrological regime	See pollution	Applicable
Alteration of soil composition	Possible depending on environmental maintenance regimes	Applicable
Pollution (direct & diffuse)	Applicable and increasing with traffic growth	Applicable
Disturbance (e.g. presence of people, vehicles, noise)	Applicable and increasing with traffic growth	Applicable
Introduction or invasion by non-native or overly dominant species	Possible depending on environmental maintenance and salting regimes	Possible but shouldn't occur
Edge effects	Applicable and increasing with traffic growth	Applicable
Genetic impacts	Unlikely unless cause by pollution	Unlikely unless cause by pollution
Behavioural impacts	Applicable and increasing with traffic growth	Applicable
Increased mortality	Applicable and increasing with traffic growth	Applicable

Proposed methodology

5.4 For each link of the road and rail network we propose to do the following analysis;

Noise and vibration.

5.5 We will calculate the noise generated by traffic and calculate the number of properties affected in a 50-metre band either side of the road or railway. We suggested that this would encompass the majority of people affected by noise in built up areas. This view has been challenged by a number of consultees, who also suggested that a 50 metre band would not allow for topographical effects. An alternative banding was suggested for biodiversity (see 5.15 below) and this may be more appropriate. It may be that we have to retain the 50 metre banding, if only because of the complexity of doing otherwise and the limited time available. If this is the case, we will highlight these issues so they are considered in more depth at a later stage, e.g. at scheme design stage.

5.5a We will seek to break down the properties affected into residential and non-residential properties We will use census data to estimate the number of residents affected by traffic noise. We will use the standard thresholds (from the Calculation of Road Traffic Noise (CRTN) and the calculation of Rail Noise (CRN)), to determine the severity of the noise effect. Other criteria will also be examined to determine the impact of noise, e.g. PPG24, World Health Organisation (WHO) Guidelines for Community Disturbance and Sleep Disturbance, Noise Insulation Regulations. In this element of the assessment we will seek to include; visitor attractions and recreational sites by scale of use, recreational parking provision and use, educational sites and number of staff/pupils, hospitals and number of staff/patients (including in-patients and an estimate of daily out-patient numbers).

5.5b Ground vibration caused by heavy traffic can have damaging effects upon roadside buildings. Often historic buildings are affected, e.g. the 18th century three story terraced stone cottages on Cromford Hill, where vibration has caused and is still causing serious structural damage. At present we have no system of measuring the effects of ground vibration upon buildings but if one is developed it will be incorporated subsequently. We will use the volume of heavy goods traffic as a proxy for assessing vibration severity.

5.6 The output from this work will be the difference in the numbers of people adversely affected by noise relative to the “do nothing” scenarios and the existing situation.

Local air quality and greenhouse gases.

5.7 We will use traffic volumes and an estimate of emissions to determine air quality effects. We will also identify congestion points on the road network and congested sections of road. Reference will be made to the air quality

strategies and review and assessment documents from individual local authorities. Given the importance of air quality, as one of the four, shared priorities, between local and central government, there is a need for joint authority initiatives and sharing of results on emissions monitoring. We will use the same base data as for noise to assess the numbers of people affected and the severity of that effect. NATA techniques and the calculation methodology described in the Design Manual for Roads and Bridges (DMRB) will be used alongside the National Air Quality Objectives. The output from this work will be the difference in the numbers of people adversely affected by NO₂ and PM₁₀ relative to the “do nothing” scenarios and the existing situation.

5.7a The impact of air quality and greenhouse gases on flora and fauna should not be forgotten either. The work carried out in Derbyshire as part of the National Air Quality Strategy can be used to give a current baseline, as we are aware of the number of AQMA’s that have been declared in the county.

5.8 So far as greenhouse gases are concerned, we will use similar methodologies to those for local air quality to estimate the total level of CO₂ emissions for each option and set this against the “do nothing” scenarios and the existing situation.

Landscape.

5.9 We will use the various landscape considerations and designations, e.g. National Park, Special Landscape Areas, landscape character assessment, and assess what proportion of these areas are affected by road or rail infrastructure and traffic. We will use a 300-metre bandwidth and we will assess severity of effect by reference to traffic volume. We will also do an analysis for “tranquillity”, using the measurements set out by the Countryside Agency. Some consultees questioned the use of proportions to assess the traffic effects on landscape. The intention is to use proportions to assess the amount of a particular resource affected and then to calculate the severity of that effect.

5.9a Whilst assessing the “proportion” of landscape affected makes sense for designated landscapes it is not appropriate for an assessment of impact on landscape *character*. All landscapes have character and the network of roads, lanes and routeways is one of the characteristics that can help to define them. This information is included in the published characterisation analysis ‘The Landscape Character of Derbyshire’. We have not yet established a way of measuring or assessing impact upon landscape character, but this needs to be done as soon as possible.

5.10 The output in this case will be the change in area adversely affected and the change in severity of that effect.

5.11 We will also do an analysis of “light pollution” by identifying which non-urban roads are lit. We will calculate the area affected by using a 300-metre bandwidth. At this stage, there will be no measure of severity of impact, only

area affected, so the output would simply be the change in area affected by light pollution. We will seek to establish a measure of severity of light pollution based on;

- the quality of the landscape affected (see 5.9-5.10 above)&
- the quality of the light source, i.e. old style orange fog or new downward focussed white light.

5.11a There is some concern that a 300-metre bandwidth could be too narrow for an assessment of visual impact on some landscape types. Some consultees suggested using the Derbyshire Landscape Assessment as a guide, though it is difficult to see how this addresses the question of bandwidth suitability. It is acknowledged that there are limitations to the use of the 300 metre banding, especially for assessment of visual intrusion. What is really required is a calculation of the “visual envelope” of the road or railway, i.e. the limits from which the structure or the traffic can be seen. This obviously varies dependant on the landscape character through which the road or railway passes. For instance, the A6 through Taddington Dale is tightly constrained and could not be seen 50 metres away let alone 300 metres. By contrast the Hope valley railway line is visible from the Losehill-Mam Tor ridge, and the A57 at Snake summit is visible from the top of Bleaklow and Kinder Scout. The limitations to the use of the 300 metre banding as an assessment of visual intrusion are recognised. Alternatives could be considered further at a later stage of the LTP process, and would certainly be an issue at scheme design stage.

5.11b. The 300 metre banding is not used for tranquillity mapping.

Townscape.

5.12 We suggested using a 50 metre banding (as for noise), and calculating the area of town affected. Some consultees have disputed whether this will give a reasonable representation of the effects of traffic on townscape. We also suggested that the severity of effect would be based on traffic volume and a similar scale to that proposed for Landscape was suggested. We asked consultees for their views on the thresholds to be employed and also on a valuation of townscape. Our initial view was that only conservation areas, or built areas with a substantial concentration of listed buildings would fall within the remit of this analysis, though clearly other areas of high value townscape, such as the World Heritage Site ought to be included. However consultees felt that all areas of townscape should be evaluated not just designated areas like conservation areas. Consultees acknowledged that extra weighting should be given to designated areas.

5.12a The output would be the change in area adversely affected set against the “do nothing” and existing scenarios. We are still discussing ways of determining effects and valuations on “townscape”, but we have done an initial evaluation based on the original suggestion.

Heritage.

5.13 This topic covers cultural heritage, architectural heritage and archaeological heritage. In open country we will use the same 300-metre bandwidth as for landscape and in built areas we will use the 50-metre bandwidth as for noise. We will identify the proportion of any conservation area affected, along with the number of listed buildings, ancient monuments, historical parks and landscapes within the buffer zone. We will assess the severity of any effect by reference to traffic volume and in particular to the volume of lorry or freight traffic. It appears that there may be duplication between this topic and the townscape and landscape topics. We invited consultees' views on this. The comments received were conflicting but those of the environmental agencies have been accorded greater weight and are reproduced in the following paragraph.

5.13a The use of an approach essentially based on NATA does provide a consistent approach to assessment. It can mean however, that certain parts of the historic environment are dealt with under townscape and landscape. It may be that landscape and townscape is interpreted in the context of 'character' and, if appropriate visual impact, while most types of historic asset, including archaeology are considered under the Heritage heading. It is, however, appropriate to consider wider historic landscapes under the 'landscape' heading. Clearly, if the assessments proposed under 'townscape' and 'landscape' are used, it will need to be explained that these aspects of the historic environment are covered in these sections, in order to avoid duplication. The mitigation of impacts on the historic environment will be consistent with the advice set out in PPG's 15 and 16.

5.14 The proposed output would be the change in area and severity of effect relative to the "do nothing" and existing scenarios. The method of assessing severity is still being discussed with the relevant agencies and colleagues. Likewise the method of meshing together landscape, townscape and other heritage considerations is still under discussion. An initial evaluation has been undertaken using the originally proposed methodology.

5.14a In accordance with national transport policy, an over-arching objective for a LTP is to protect and enhance the built and natural environment. The historic environment embraces both built and natural components, and by its nature is irreplaceable. All types of transport schemes and measures can have a potential impact on the historic environment, whether directly or indirectly. For example, this can range from the direct impact of land take associated with major new road schemes and improvements to the existing road network, to the introduction of traffic management measures and their impact on the character and appearance of historic townscapes and landscapes. It is not enough just to consider the impact on designated sites; a broader view of the historic environment should be taken that addresses local character.

5.14b All programmes, major schemes, and other major elements proposed as part of a LTP need to be carefully appraised as to their potential impact on the historic environment. The overall aim of the appraisal process should be to seek to avoid or minimise any adverse effects and to maximize potential

benefits for the historic environment. For example, the latter could include reducing traffic flows and parking pressures from historic town centres, thereby achieving a reduction in the damaging effects of vibration, air pollution, and visual intrusion. Improvements in public transport provision or measures to encourage cycling and walking might also serve to increase accessibility to and improve the recreation and tourism potential of heritage sites, including in the case of Derbyshire, the Derwent Valley Mills World Heritage Site.

5.14c English Heritage generally welcomes proposals for the reuse of existing structures either for the reinstatement of public transport provision or the introduction of new transport proposals, such as, for example, the restoration and conversion of disused railway lines as cycling and walking routes. In the design and implementation of such schemes, however, the presence of historic features and structures needs to be identified and their retention made an integral part of the project. Indeed as highlighted in Planning Policy Guidance Note 15 (paragraph 5.6), many structures such as historic bridges are subject to listing and special consideration needs to be given to their repair and restoration either as part of a proposal or wider maintenance programmes.

5.14d LTPs need to incorporate overarching design principles. It is recognised that the cumulative impact of smaller scale projects on the character and appearance of an area can often be as damaging as larger schemes. Hence, general design principles should aim to ensure that all proposed programmes and schemes respect and seek to enhance the character, appearance and local distinctiveness of urban and rural areas. This should involve conserving distinctive heritage features in situ, reinstating them where appropriate, ensuring the sympathetic design and siting of new street furniture (including lighting), and promoting the use and, where appropriate, re-use of local natural materials.

5.14e Schemes associated with traffic calming and management can adversely affect the character and appearance of historic features and areas through the introduction of poorly designed and sited infrastructure and signage, and the use of inappropriate materials. These issues are applicable to rural settlements as well as larger urban areas, and to the wider countryside as, for example, in the 'urbanisation' of the rural road network through the use of standardised surfacing materials and structures. In the design and implementation of all transport schemes, the underlying aim should be to ensure that the proposed measures are integrated sensitively into the surrounding townscape or landscape so that local character is reinforced rather than eroded.

5.14f The regional version of 'Streets for All' (English Heritage, 2004) is one of the documents referred to in Appendix One. It provides guidance on the design of traffic calming and management measures.

5.14g The important contribution that floorscape, street furniture, signage, lighting, and roadside trees can make to the appearance and character of

Conservation Areas is highlighted in PPG15 (paragraphs 5.13 – 5.18). The guidance manual 'Streets for All', as referred to above, also sets out general principles for ground surfaces, street furniture, and new equipment with the aim of reducing clutter, co-ordinating design and reinforcing local character.

Landscape, Townscape, Heritage and Urban Design.

5.14h There is a need to gather base line information on POSITIVE and NEGATIVE attributes in order to address issues of transport effects upon landscape, townscape, heritage and urban design.

5.14i Consultees suggested the following checklist of positive attributes, based on a 50 metre band width—per 100 linear metres.

- Number of listed buildings
- Number of unlisted buildings within a conservation area
- Number of sites on the SMR (this will pick up historic street furniture like milestones, bollards and Victorian lighting columns)
- Linear quantities of traditional boundary features eg stone walls, brick walls, cast iron railings.
- Linear quantities of traditional kerbing/paving materials eg stone, blue brick, cobbles.

5.14j The corresponding checklist for negative attributes was:

- Linear quantity of concrete kerbs (particularly significant for measuring urbanisation of the countryside)
- Modern lighting columns(ditto)
- CCTV columns/telecommunications masts
- Traffic direction signs
- Traffic warning signs
- Posts without signs and other redundant street furniture
- Traffic lights
- Road markings
- Guard rails and barriers
- Flyovers and subways

5.14k Consultees also felt that, as part of this exercise, there is a need to measure the extent to which new road and railway alignments dislocate historic urban and rural environments. They suggested that an assessment of this might best be done by measuring the number of historic boundaries that a new road or railway line would disrupt, e.g. street lines, property boundaries, field boundaries, administrative boundaries etc. It should be noted that any significant new road or railway construction within the LTP2 period is likely to be extremely limited.

5.14L It is unlikely that the information to undertake the sort of analysis outlined in 5.14h-k exists in useable form at present, but the Transport Asset Management Plan should be collecting this data. As and when it becomes available we will try a pilot exercise.

Biodiversity.

5.15 We will use the statutory designations SPA, SAC, SSSI, National and Local nature reserves and assess the proportion of each of these affected by traffic. We will also assess the effect on non-statutory sites like the Derbyshire Wildlife Sites. We suggested use of the 300 metre band width as for landscape, but some consultees have suggested alternative approaches, e.g. 1st 50 metres major impact, 2nd 50 metres medium impact, >100 metres minor impact. The actual measure has yet to be decided, but we have done an initial analysis based on our original suggestion.

5.15a As there is some evidence that bird and animal activity is adversely affected by noise we will consider ascribing a severity of effect to any site designated for animal or bird purposes, by reference to traffic volume. We sought consultees' views on this and on the sort of thresholds that might be employed to determine severity. This topic will include any effect on geological SSSI's and RIGS, as well as effects on flora and fauna.

5.15b The output from this piece of work would be the change in area and severity of effect relative to the "do nothing" and existing scenarios. Some consultees challenged the use of proportions as a measure. They cite the paramount need to protect the integrity of these international and national sites and consider that the real measure is whether the site is affected at all. Interestingly the proposed methodology was not challenged by English Nature. The methodology is still being discussed with colleagues.

5.15c One drawback of the proposed methodology is that severe effects on individual statutorily designated sites may be masked in the overall assessment. This problem also applies to other topic areas. We need to develop a methodology to identify and quantify these effects, so that the LTP can address the necessary mitigation measures.

5.16 We also propose to make reference under this topic heading to any severance effects. We have been unable to obtain any comprehensive data on animal deaths. We propose to use the same thresholds for animal severance as for human severance, i.e., based on traffic volume and speed. We asked for comments from consultees on any known areas where habitat severance and fragmentation is an issue. Some information has been received and is incorporated into the appropriate section or appendix of this report.

5.16a We will try to assess the continuity (or otherwise) of wildlife corridors adjacent to roads and railways. As part of this assessment we will seek to establish the ecological importance of highway and railway land and its contribution to overall environmental quality. Work has not yet started on this aspect of the SEA and it is not clear at this stage whether the data exists to enable an evaluation to be made.

Water.

5.17 We suggested the use of the 300-metre bandwidth to assess the area of water catchment affected by traffic and we proposed to assess the severity of the effect by reference to traffic volume. We sought consultees' views on this and on the thresholds to be adopted. There were two main responses from consultees. The first suggested reference to the Water Framework Directive and the second suggested that the water topic should include reference to flooding. Both of these will be followed up.. The output from this element of the SEA would be the change in area and severity of effect relative to the "do nothing and existing scenarios. This element of the SEA has yet to be addressed.

Physical fitness.

5.18 We do not propose to address this as part of the SEA, but see community severance below. We will however report on it under accessibility planning and there will be reference to physical fitness in the Environmental Report under the Human Health topic heading.

Accidents.

5.19 We will plot casualties on the road network and assess severity by reference to the mileage travelled on the various links. We will seek to do a similar exercise for the railway network and for on-bus casualties, but local data seems difficult to come by. The output from this element of the SEA would be the change in number and severity of casualties relative to the "do nothing and existing scenarios.

Security.

5.20 We will seek to obtain data on car crime and other transport related criminal activities, including rail vandalism. We will then plot these in relation to the road and rail network and highlight particular problem areas. We have had some difficulty in obtaining comprehensive data for this topic and work on this is not very far advanced.

Community severance.

5.21 We suggested the same methodology as Noise for community severance and as Biodiversity for species severance. Consultee responses centred round the need to give particular attention to persons with disabilities. There were no suggestions of alternative methods of assessment, except a proposal that some analysis should be made of potential footfall change within a buffer zone around relevant LTP projects, so that positive and negative change can be predicted. It is unlikely that the SEA will be able to go to such a detailed level, but we should be able to identify where these issues are likely to occur and flag them up for detailed analysis at scheme design stage. There were queries too about the definition of community severance. Our view is that it is not the role of the SEA to go into great detail about these matters, merely to flag up potential problems, especially in villages and towns.

The necessary information to analyse issues like farm severance will not be available at SEA level, but will have to await detailed scheme design.

5.21a In the case of biodiversity we will seek to identify and plot any information about animal mortality on the road and rail network, any information about animal migration routes, and examples where severance and fragmentation of a habitat is leading to unsustainable plant and animal communities. We asked consultees for information/advice on these aspects, but none has been forthcoming on the biodiversity aspects. It therefore seems that this analysis cannot be undertaken at this stage.

5.22 In addition, this topic will also identify any impact on designated or planned recreational routes, i.e. those shown on the latest editions of the OS maps, or in Local Plans or LSF's, where these routes cross roads and railways on the level. In this case the severity will be assessed by reference to traffic volume and usage, or predicted usage of the recreational routes. The output from these elements of the SEA would be the change in number and severity of impact relative to the "do nothing and existing scenarios. This element of the SEA has not yet been addressed.

Access to the transport system.

5.23 This will be addressed as part of the accessibility planning work rather than through SEA. This needs to specifically consider the issue of rural service deprivation.

Wider economic impacts/Material assets.

5.24 The DfT guidance links the material assets topic to a number of NATA sub-objectives, including business users and providers, consumer users and public accounts. These sub-objectives cover issues like vehicle operating costs and value of land and property. In the context of an LTP SEA, we feel that issues like usage of mineral resources (for transport infrastructure), fuel consumption, land take and property demolition ought to be considered in this topic area. We also feel that reuse and recycling of road materials and use of indigenous materials would merit some analysis.

5.25 We will therefore seek to calculate the material assets utilised in transport in the county. At very least we will calculate what materials we use in the maintenance, improvement and operation of the road system and estimate the amount of reused or recycled material we use or which is disposed of by DCC and then reused by others. We are still in discussion with colleagues as to how this topic should be addressed and how any outputs should be expressed.

Secondary, cumulative and synergistic effects

5.26 TAG 2.11 (Appendix 5) gives guidance on how to assess cumulative environmental effects. Not surprisingly there is little experience of this at present, though the DfT and ODPM guidance does give a range of possible

techniques. However, what is clear is that some assessment has to be made of cumulative effects in order to comply with the SEA Directive.

5.27 Clearly, cumulative effects can arise in a number of ways. DfT guidance stresses that these effects are likely to be of particular importance in transport planning, because of the inter-related nature of various transport measures. Given the number of schemes likely to take place in the plan period (2006-11) there is a strong likelihood for cumulative effects to occur and these must all be considered.

5.28 DfT and ODPM guidance will be followed so far as is possible in the county situation and the assessment of these spin-off effects will encompass the following;

- Primary effects
- Secondary effects, i.e. indirect effects
- Synergistic effects
- Short, medium and long term effects
- Permanent and temporary effects
- Positive and negative effects

5.29 We asked for comments from consultees on the methodology suggested; its scope, its effectiveness in identifying and quantifying the environmental issues, and the practicality of undertaking the exercise in the time available. A number of comments were received, some general, some relating to specific topic areas. Where appropriate these have all been incorporated in the relevant part of this section of the report. The comments are reported in full in Appendix Seven.

5.29a We are also mindful that an individual scheme or transport measure may not have a significant effect on environmental issues at the county level, though the local impacts may be considerable. We do not feel that an LTP SEA can (or should) go into the amount of detail that would isolate such effects because it is of necessity, strategic. The best that can be achieved is the identification of likely local effects with their detailed assessment/mitigation being left to more detail design stage, through Environmental Impact Assessment (EIA). We asked for consultees' views on this and received a number of comments. These are reported in Appendix Seven and included in this report where appropriate. However, it would appear that the SEA would be failing if it was not of sufficient rigour to identify areas where there might be significant local effects of schemes being promoted in the LTP, even if the detailed impacts are not examined at this stage. If the SEA does identify potential conflicts between transport and other objectives and the impact on the environment, this should stimulate a debate on whether a particular scheme should be progressed and whether other options exist. It should be possible, given the data available and the input of professional expertise, to be able to identify any major areas of concern. It will however, be necessary to identify where cumulative local effects of a relatively minor nature might become strategic.

Dealing with Risk and Uncertainty

5.29b There are a number of problems associated with undertaking a Strategic Environmental Assessment for an LTP. These centre round a fundamental difference in view about the nature and use of the SEA process. Collecting and analysing the environmental data and evaluating options will not tell the County Council what to do. Rather it will have to be interpreted and then a strategy and programme devised that addresses the various concerns. SEA comes with numerous risks and uncertainties. This is inevitable in any predictive process, but arguably SEA is even more risky and uncertain than most, partly because it is a relatively new technique and partly because of its reliance on data which is likely to be incomplete, or unrepresentative or open to numerous interpretations. There are clearly gaps in data availability, which lead to a risk that some topic areas will be inadequately covered at this stage. These data gaps will need to be plugged and other data sets refined over the plan period and beyond if the SEA is to have any validity and effect. There are also uncertainties surrounding predictions of traffic growth, (so closely related to economic activity), or predictions of land use change, likewise a function of economic activity.

5.29c The sheer number of data sets and likely scenarios for change in each of them leads to a bewildering array of possible outcomes. Any one of these might come to pass, but their effects are only partly understood or even guessed at. Fuel prices are an example of this. What would be the effect of a continuing rise in fuel prices? Would a reduction in car usage result? Would there be relocation effects on housing and business? Would there be dramatic changes in fuel types or more fuel economic engines? Probably a combination of all four, but in what proportion? What would be the environmental consequences of such changes, especially if the cause of the fuel price hike was not environmental taxation but increases in world consumption of oil and its use in less environmentally friendly engines in places like China and India?

5.29d In the light of the sorts of uncertainties and risks outlined in the previous paragraphs, we intend to work on the basis of the “worst case scenario” when assessing environmental effects. We will therefore work on the assumptions that, during the next LTP period and through to 2021;

- traffic growth will continue as before (and we will use NRTF High Growth predictions)
- there will be no significant improvement in vehicle technology affecting emissions or noise.

We will devise our programme of environmental mitigation around these predictions, monitor the environmental and traffic data over the plan period and adjust the programme accordingly as the various effects become clearer and the data becomes more reliable and available.

Section 6: Suggested SEA monitoring.

6.1 As previously mentioned, the SEA directive does not specifically require the use of objectives, indicators or targets as part of the assessment process. However, they are a recognised way in which environmental effects can be quantified. We have developed objectives, indicators and targets for the SEA, closely aligned to those of the New Approach to Transport Appraisal (NATA) and to those intended for the LTP itself.

6.2 SEA objectives appear in Appendix Two. These have been refined and added to following the Scoping Report consultation.

6.3 We asked for consultees' views on possible targets and indicators relating to these objectives. A number of comments were received. In the light of these and following discussions internally, we have developed a series of possible targets and indicators. These appear in Appendix Two to this report but we would welcome comments on them. The indicators and targets need to be sufficiently robust to enable us to assess whether or not SEA objectives are being achieved. In particular, we need to consider;

- when and how frequently data needs collecting
- when should any action be considered
- what action should be put in place

6.4 We asked for consultees' views on possible indicators for environmental monitoring and whether there is any nationally available data that can be dis-aggregated to local level for use in this way. Some comments were received and have been incorporated as appropriate into Appendix Two. Consultees' comments are reported in full in Appendix Seven. No information was received on any useable nationally available data, so it would appear that we are reliant on local data sources.

6.5 No attempt has been made as yet to show how far we are away from the suggested targets. This is impossible to do in the absence of some of the baseline indicator information. Appendix Three identifies where data is missing. However, it is worth noting that the County Council may not be in the best position to collect and analyse some of this data and may be reliant on outside agencies. It will be important to identify which datasets have the highest priority in terms of addressing key environmental issues.

6.5a Note that work on finalising objectives, indicators and targets is ongoing and is unlikely to be completed much before submission of LTP2 in July 2005.

Section 7: Proposed structure of the Environmental Report.

7.1 Schedule 2 of the SEA regulations sets out what information is to be provided in the Environmental Report. This is summarised below;

- An outline of the contents, main objectives of the plan and its relationship to other relevant plans and programmes
- Relevant aspects of the current state of the environment and its likely evolution in the absence of the plan.
- Environmental characteristics of any areas likely to be significantly affected by the plan.
- Any existing environmental problems relevant to the plan, including especially those relating to areas of particular environmental importance, e.g. areas designated under EU Directives 79/409/EC (Special Protection Areas for birds) and 92/43/EC (Special Areas of Conservation, (Habitats directive)).
- Relevant environmental protection objectives established at international, EU or national level, and the way those objectives and any other environmental considerations have been taken into account during the preparation of the plan.
- Likely significant effects on the environment, including cumulative, secondary and synergistic effects, short, medium and long term effects, permanent, temporary, positive and negative effects.
- The Environmental Report coverage should include reference to the following issues; air, biodiversity, climatic factors, cultural heritage, fauna, flora, human health, landscape, material assets, water, soil and population. The Environmental Report should also identify interrelationships between these factors.
- Measures designed to prevent or at least mitigate as far as possible, any significant adverse environmental effects, and measures designed to amplify any significant beneficial environmental effects of the plan. The use of the term “mitigation” presupposes that the effects of the chosen programme will be detrimental to the environment and that somehow we have to compensate for this. It would be more desirable for the chosen programme, and the individual schemes in it, to seek to avoid environmental disbenefits in the first place, and, if possible to incorporate environmental enhancement measures. The Environmental Report will identify how successful we have been in achieving this.
- Reasons for selecting the options dealt with in the plan. A description of how the assessment was undertaken and why final decisions were made, including any difficulties encountered.
- Proposed monitoring methodology.
- A non-technical summary of all the aspects mentioned above.

7.2 The Environmental Report has to include all the information that may reasonably be required for an evaluation of the environmental aspects of the LTP. Inevitably this is constrained by current knowledge, methods of assessment and the level of detail required by an LTP. More detailed

assessment will be required at scheme development stage and the effects of the LTP programme will be subject to continuous environmental monitoring. The SEA for LTP2 is not intended to cover environmental analysis of individual schemes as these matters are more appropriately assessed at a later stage. The corollary of this is that, at scheme analysis stage, there would not be a repeat of the strategic assessment (ref. 5.29).

7.3 The intended structure of the Environmental Report is set out below.

- **Chapter 1 Non-technical summary.** A summary of the SEA findings, in plain English. This will also set out what difference the SEA process has made to the preparation of the LTP.
- **Chapter 2 Introduction.** The background to and purpose of the SEA and the Environmental Report, its relationship to the LTP process, the requirements of the SEA Directive, the consultation arrangements and their role.
- **Chapter 3 Methodology.** The scope of the study, the findings of the consultation and the influence of consultation on the SEA and the LTP. This Chapter may also deal with monitoring requirements (but see Chapter 6 below)
- **Chapter 4 Baseline and SEA Objectives.** This Chapter will deal with the baseline information, analysis of future trends, links to other plans and programmes, links to environmental protection policies and objectives. This Chapter will also deal with any difficulties encountered in data collection and analysis and with any identified environmental problems.
- **Chapter 5. Option Development.** This Chapter will summarise the preferred LTP strategy and accompanying 5 year programme. It will set out which options were considered, the analysis that was undertaken and the background to the decisions leading to the adoption of the preferred strategy and programme.
- **Chapter 6. Assessment of Environmental Effects.** This will identify significant environmental impacts, suggest mitigation measures and identify any unresolved significant environmental issues. This Chapter may also deal with monitoring requirements (see Chapter 3 above)

Glossary of terms

Terms shown in italics only occur in appendices.

AADT	<i>Average annual daily traffic</i>
ALTER	<i>Alternative traffic in towns (declaration of Florence)</i>
AQMA	Air quality management area
AVBC	<i>Amber Valley Borough Council</i>
BAP	<i>Biodiversity action plan</i>
BARS	<i>Buildings at risk survey</i>
BQP	<i>Bus quality partnership</i>
BSJTS	<i>Burton-Swadlincote joint transport strategy</i>
CA	<i>Countryside Agency</i>
CCTV	<i>Closed circuit television</i>
CHAP	<i>Cultural heritage action plan</i>
CO ₂	Carbon dioxide
CPRE	Campaign to Protect Rural England
CRN	Calculation of rail noise
CROW	<i>Countryside and rights of way Act</i>
CRTN	Calculation of road traffic noise
DCC	Derbyshire County Council
DDDC	<i>Derbyshire Dales District Council</i>
DEFRA	<i>Department of environment, food and rural affairs</i>
DETR	<i>Department of environment, transport and the regions</i>
DfT	Department for Transport
DMRB	Design manual for roads and bridges
DWS	Derbyshire wildlife sites
DVMWHS	<i>Derwent valley mills world heritage site</i>
EA	Environmental appraisal
EAg	<i>Environment Agency</i>
EC	European Commission
EFS	<i>England forestry strategy</i>
EH	<i>English Heritage</i>
EIA	Environmental impact assessment
EM	East Midlands
EMRA	<i>East Midlands Regional Assembly</i>
EN	<i>English Nature</i>
EU	European Union
GIS	<i>Geographical information system</i>
GM	<i>Greater Manchester</i>
GOEM	Government Office for the East Midlands
HA	<i>Highways Agency</i>
HGV	<i>Heavy goods vehicle</i>
HOV	<i>High occupancy vehicle</i>
HLC	Historic landscape characterisation
IRS	<i>Integrated regional strategy</i>
LAQAP	<i>Local air quality action plan</i>
LBAP	<i>Local biodiversity action plan</i>
LEAP	?
LGA	<i>Local Government Association</i>

LNR	<i>Local nature reserve</i>
LP	<i>Local Plan (land use planning)</i>
LSF	Local strategic frameworks (successor documents to Local Plans)
LTP	Local transport plan
LTP2	Second local transport plan 2006-11
MEGZ	<i>Markham employment growth zone</i>
MBC	<i>Metropolitan Borough Council</i>
MHT	<i>Mottram, Hollingworth and Tintwistle by-pass</i>
MMS	<i>Multi-modal study</i>
NATA	New approach to transport appraisal
NAQS	<i>National air quality strategy</i>
NEDDC	<i>North-east Derbyshire District Council</i>
NETA	<i>North European trade axis</i>
NFC	<i>National Forest Company</i>
NNR	<i>National nature reserve</i>
NO2	Nitrogen dioxide
NRTF	<i>National road traffic forecast</i>
NSCA	<i>National Society for clean air and environmental protection</i>
NW	<i>North-west</i>
ODPM	Office of the Deputy Prime Minister
OQL	<i>Other quality of life issues</i>
OS	Ordnance Survey
PCU	<i>Passenger car unit</i>
PDNP	<i>Peak District National Park</i>
PM10	Particulate matter
PPG	Planning Policy Guidance
PPS	?
PSA	<i>Public service agreement</i>
RAMSAR	<i>Convention on wetlands (named after Ramsar in Iran)</i>
REC	<i>Regional economic strategy</i>
RES	<i>Regional environmental strategy</i>
RIGS	Regionally important geological sites
ROW	<i>Rights of way</i>
ROWIP	<i>Rights of way improvement plan</i>
RPG	<i>Regional planning guidance</i>
RTPI	<i>Real time passenger information</i>
RTS	<i>Regional transport strategy</i>
SAC	Special area of conservation (a European environmental designation)
SDDC	<i>South Derbyshire District Council</i>
SEA	Strategic environmental assessment
SEMMMS	<i>South-east Manchester multi modal study</i>
SI	<i>Statutory instrument</i>
SINC	?
SMR	Sites and monuments register
SPA	Special protection area (a European environmental designation)
SPG	<i>Supplementary planning guidance</i>
SPITS	<i>South Pennines integrated transport strategy</i>
SQL	?

SR	Scoping report
SRA	<i>Strategic Rail Authority</i>
SSSI	Site of special scientific interest
<i>Staffs</i>	<i>Staffordshire</i>
SUDS	<i>Sustainable drainage system</i>
SY	<i>South Yorkshire</i>
TAG	Transport analysis guidance
TPI	<i>Targeted programme of improvements (Highways Agency)</i>
TPO	<i>Tree preservation order</i>
UDP	<i>Unitary development plans</i>
UN	<i>United Nations</i>
UNESCO	<i>United Nations educational, scientific and cultural organisation</i>
WHO	World Health Organisation
WHS	<i>World heritage site</i>
WM	<i>West Midlands</i>
WMEM	<i>West to East Midlands multi modal study</i>
Y&H	<i>Yorkshire and the Humber</i>