

## Chapter 9 Monitoring the environmental effects

### 9.1 Introduction

- 9.1.1 The SEA Directive requires all significant environmental effects of the implementation of the Plan to be monitored (Article 10). This will help in identifying at an early stage any unforeseen adverse effects and to be able to take any appropriate remedial action. The Directive states that to reduce duplication, existing monitoring arrangements may be used if appropriate.
- 9.1.2 The outcome of the evaluation of the preferred LTP3 strategy is that there should be no significant negative environmental effects of the Plan. However, we identified that it is likely that there would be significant positive effects for the following:-
- SEA 6 Ensure the provision of transport and services considers the needs of elderly people, particularly in rural areas.
  - SEA 9 Enhance well-being and sense of community by reducing traffic impacts, creating more opportunities for social contact and better access to leisure activities and the natural environment.
  - SEA 10 Reduce transport's emissions of carbon dioxide and other greenhouse gases, with the desired outcome of tackling climate change.
  - SEA 13 Minimise the use of environmental resources.
- 9.1.3 Although we have identified no significant negative impacts, we recognise that there are a number of threats to the positive effects of the Plan and as such where there are conflicts e.g. road signs and landscape character, we are proposing to monitor trends where threats exist.
- 9.1.4 We also recognise that the assessment of the Plan's impact is based upon a number of uncertainties at present particularly in that it is a flexible strategic plan with a 15 year time horizon. Monitoring can also be used to verify information that is used within the environmental report to clarify at a later stage which could help identify unforeseen adverse effects.

### 9.2 Derbyshire LTP3 Environmental Monitoring

- 9.2.1 To manage the risk of negative environmental effects and to monitor the success of the potential significant positive effects we are proposing the following environmental monitoring.

#### Risk management

- 9.2.2 To manage the risk of adverse environmental effects due to the level of uncertainty in delivery, we are proposing to monitor a number of trends based upon potential conflicts identified within this SEA to help reduce our uncertainty of the effects of the LTP3 delivery, namely:-

#### **'Setting' of transport infrastructure within the landscape and heritage assets due to the risk of additional infrastructure to reduce road casualties**

Relates to **SEA Objective 1: Protect and enhance the landscape character (Landscapes, townscapes and the historic and natural environment) including the setting of heritage assets, of the whole plan area, with due regard to areas of multiple environmental sensitivity**

#### **Street furniture**

- 9.2.3 The evaluation of issues through the Scoping Stage and through the appraisal stages has consistently highlighted that a risk of the Plan's delivery is further 'cluttering' of the landscape and heritage assets from further introduction of transport infrastructure. Overall the Plan is expected to have a positive effect by removing unnecessary infrastructure and by using the 'areas of multiple environmental sensitivity' as a tool for making judgements about the implementation of transport interventions. In measuring this impact we are taking a simplistic view of the issue to enable us to monitor this by considering only the number of signs contained within our transport asset on a spatial basis:-

#### **SEA Indicator 1 – Number of signs within Derbyshire**

This will be subdivided by:-

- Number of signs within the Peak District National Park

- Number of signs within the Derwent Valley World Heritage Site
- Number of signs within the remaining Primary Areas of Environmental Sensitivity
- Number of signs within the remaining Secondary Areas of Environmental Sensitivity
- Number of signs within the remaining areas of Derbyshire

9.2.4 We are not setting any targets for these indicators, other than that we will expect there to be no net-gain in traffic signs over the Plan period from the start of the Plan period. We will measure this on an annual basis. At this stage we are working on establishing the baseline position. To do this we need to update the asset inventory with the new infrastructure that has been implemented during LTP2 since the initial survey was undertaken and since then, there has also been a programme of sign reduction already during this period.

### **Light pollution**

9.2.5 The appraisal stage also identified that light pollution was an issue that could potentially have a negative impact upon darker skies if it was not managed. The appraisal stage identified areas that were more vulnerable than others to the further introduction of lighting and that these areas should be targeted through any schemes to reduce street lighting as part of carbon reduction strategies to achieve secondary benefits of reduced light pollution and preserving darker skies. Generally the light pollution mapping as shown in Chapter 7 concurs with the Areas of Environmental Sensitivity as described in Chapter 7 and referred to in relation to 'cluttering'. Measures to reducing street lighting CO<sub>2</sub> emissions may include reducing the lit hours of infrastructure or the wattage consumption by lighting units and therefore purely monitoring street lighting density may not illustrate the true picture. However, at this stage we do not know what the eventual measures will entail and therefore we are suggesting that street lighting is monitored within the same spatial context as for street furniture, but acknowledge that this may need reviewing following the development of more detailed implementation plans:-

#### **SEA Indicator 2 – Number of street lights within Derbyshire**

This will be subdivided by:-

- Number of street lights within the Peak District National Park
- Number of street lights within the Derwent Valley World Heritage Site
- Number of street lights within the remaining Primary Areas of Environmental Sensitivity
- Number of street lights within the remaining Secondary Areas of Environmental Sensitivity
- Number of street lights within the remaining areas of Derbyshire

### **Risk of traffic growth due to supporting the economy and the impact of this upon a number of other environmental issues**

Relates to:

**SEA Objective 3 Support a resilient economy**

**SEA Objective 4 SEA 4 To reduce motorised traffic growth through a combination of demand management measures, land use planning and encouragement of the use of more sustainable transport modes**

9.2.6 The evaluation of issues through the Scoping Stage and through the appraisal stage highlighted the benefits that a reduced level of motorised traffic and encouragement of more sustainable travel would have on many of the environmental topic areas. It is clear however that traffic levels are likely to grow over the Plan period whether or not we are successful in reducing the use of motorised traffic. Therefore to enable us to monitor this, we can measure the trend of traffic growth.

9.2.7 As above, we are not setting any targets for traffic growth. We will measure the trend against National Road Traffic Forecasts. We would hope that the traffic growth experienced in Derbyshire will follow the prediction of a low growth scenario.

#### **SEA Indicator 3 – Derbyshire road traffic growth**

## Significant positive effects

- 9.2.8 The evaluation of the Plan highlighted four SEA objectives that a significant positive effect may potentially be achieved through the Plan's implementation. We intend to monitor two of these:-

### SEA 10 Reduce transport's emissions of carbon dioxide and other greenhouse gases, with the desired outcome of tackling climate change.

- 9.2.9 The benefits of reducing transport's emissions of carbon dioxide and other greenhouse gases has been described and evaluated during the Scoping and Appraisal stages of Plan development. The preferred Derbyshire LTP3 strategy focussed strongly on reducing transport carbon dioxide emissions and the draft Derbyshire LTP3 contains a Road Transport Carbon Reduction (RTCR) Strategy alongside it. The RTCR Strategy will take the lead in reducing transport carbon emissions and therefore we are not suggesting new indicators as part of this SEA, but will reference to indicators set within that. At present the RTCR Strategy has not set any indicators due to work currently being undertaken to fully establish the carbon emissions from the transport network and robust predictions for emission factors. At present the strategy is recommending that measures are developed to support the National carbon dioxide emissions indicators:-

#### SEA Indicator 4 - NI185 Percentage carbon dioxide emissions reductions from local authority operations

#### SEA Indicator 5 - NI186 Per Capita Emissions in the Local Authority Area

### SEA 13 Minimise the use of environmental resources.

- 9.2.10 The SEA Scoping and Appraisal stages have highlighted two key issues in relation to the use of environmental resources – energy usage by the lit transport asset and the use and reuse of materials. Other issues such as the use of fuels are included under the CO<sub>2</sub> emissions work described above. The appraisal stage highlighted that we could have a significant positive effect in minimising the use of environmental resources. As described, we are currently unable to monitor the total material usage through the Plan's implementation because the data is currently collected on a scheme by scheme basis and it would be impracticable to collect it at this stage. We recognise that we need to develop an indicator to monitor material usage, re-use or waste to enable us to consider the amounts and proportions of material usage. We are currently in discussion with officers who are responsible for our Environmental Management System who are considering methodologies for collecting such data. We are able to monitor electrical energy usage by the transport asset.

#### SEA Indicator 6 - Energy usage of the Derbyshire lit transport asset per annum

#### SEA Indicator 7 – Materials usage indicator – yet to be developed

## Other Significant Positive Effects that we do not intend to monitor

- 9.2.11 At this stage we are suggesting that we do not monitor the remaining two significant positives:-
- SEA 6 Ensure the provision of transport and services considers the needs of elderly people, particularly in rural areas.
  - SEA 9 Enhance well-being and sense of community by reducing traffic impacts, creating more opportunities for social contact and better access to leisure activities and the natural environment.
- 9.2.12 The reason we do not intend to monitor both these is that each are based upon many different issues coming together to bring about improvements and changes in perceptions. These are extremely difficult to measure and changes are likely to only be recognised by the groups affected. Therefore, without an onerous and expensive monitoring regime, it would be difficult to analyse these trends over the lifetime of the Plan period.

## Other Environmental Monitoring

- 9.2.13 Through examination of the Plan's goals and the SEA objectives it has been clear that they are generally compatible and offer many environmental benefits. Therefore monitoring of the Plan will provide trends that we can use to monitor the success of the Plan against the SEA objectives where we have identified that there will be minor positive effects, which would not necessarily warrant individual monitoring through the SEA. Indicators under the relevant SEA objective are:-

### **SEA 4 To reduce motorised traffic growth through a combination of demand management measures, land use planning and encouragement of the use of more sustainable transport modes**

#### **SEA Indicator 8 - NI56 Obesity among primary school children in Year 6**

- 9.2.14 Information for this indicator is currently collected as part of the National Indicator set. Should this data set discontinue we do not intend to collect this information as part of SEA monitoring, but will consider other statistics published by health organisations.

### **SEA 7 Improve road safety through targeted interventions, and make travel feel safer particularly by non-car modes**

#### **SEA Indicator 9 – Number of people killed and seriously injured in road traffic collisions**

- 9.2.15 This information is collated on an annual basis as part of the publication of our Casualty Report. The source data is the STATS 19 Police collision statistics. The Authorities annual Casualty Report examines different categories of casualty.

### **SEA 11 Reduce the emission of air pollutants from transport in declared Air Quality Management Areas which relate to local traffic**

#### **SEA Indicator 10 – Air quality in Air Quality Management Areas**

- 9.2.16 This information is published by the relevant local Planning Authority. There is currently only one AQMA declared in the county that relates to local road traffic at the A616/A619 Treble Bob roundabout at Barlborough. Data for this location is provided by Bolsover District Council.

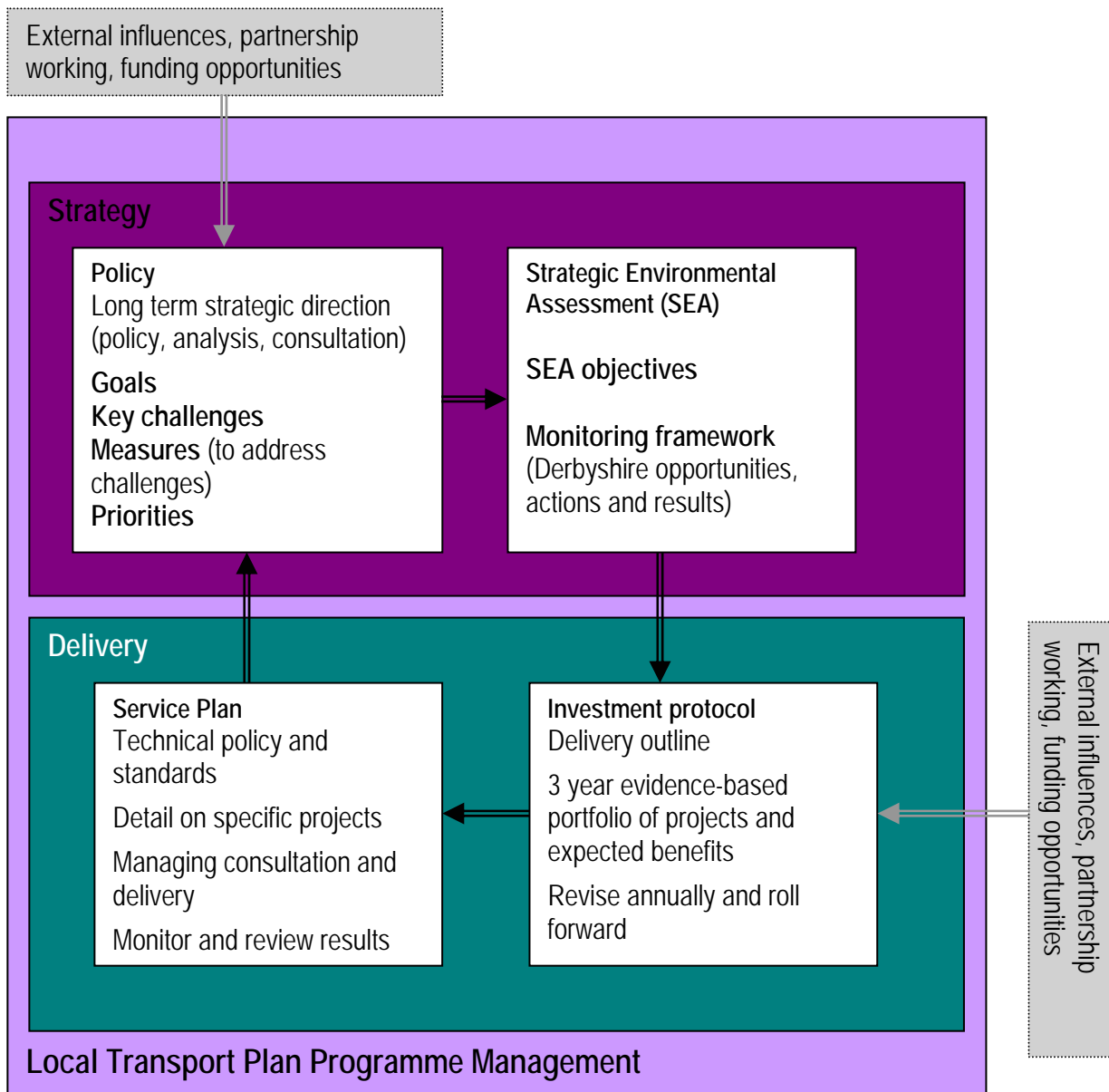
### **SEA 12 Enhance the network's resilience to climate change e.g. reduce the risk of flooding**

#### **SEA Indicator 11 - NI188 Planning to adapt to climate change**

- 9.2.17 Information for this indicator is currently collected as part of the National Indicator set. Should this data discontinue we do not intend to collect this information as part of SEA monitoring, but we will consider other statistics, particularly through the implementation of the Flood and Water Management Act.

## 9.3 Derbyshire LTP3 Monitoring and Review Process

- 9.3.1 The Local Transport Plan will be monitored, reviewed and refreshed on a regular basis. Once the plan is finalised, it will be rolled forward, with the strands of activity as follows (see Figure 9.1):
- Manage a portfolio of projects and benefits they are expected to provide (including the findings of the Strategic Environmental Assessment), and monitor progress
  - Identify changes needed to the Plan's delivery from monitoring activity, and roll forward into the next three year period
  - Identify impacts on the strategy from these changes
  - Maintain the strategy and refresh it to reflect delivery and external influences. This in turn will inform delivery.



**Figure 9.1 : Local Transport Plan Programme Management Cycle**

