# Connecting Cornwall Local Transport Plan 3 Strategic Environmental Assessment Environmental Report Non-Technical Summary

Cornwall Council

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PB 125 YEARS

# Connecting Cornwall Local Transport Plan 3 Strategic Environmental Assessment Environmental Report Non-Technical Summary

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## Abbreviations

Abbreviations used in this report are listed below:

| | |
|---|---|
| AAP | Area Action Plan |
| AONB | Areas of Outstanding Natural Beauty |
| AQMA | Air Quality Management Area |
| BAP | Biodiversity Action Plan |
| CC | Cornwall Council |
| $CO_2$ | Carbon dioxide |
| cSAC | Candidate Special Area of Conservation |
| CUC | Combined Universities in Cornwall |
| Defra | Department for Environment, Food and Rural Affairs |
| DfT | Department for Transport |
| EIA | Environmental Impact Assessment |
| EC | European Commission |
| EU | European Union |
| GHG | Greenhouse Gases |
| GVA | Gross Value Add |
| HGV | Heavy Goods Vehicle |
| HIA | Health Impact Assessment |
| HRA | Habitats Regulations Assessment |
| KSI | Killed or Seriously Injured |
| LDF | Local Development Framework |
| LNR | Local Nature Reserve |
| LTP | Local Transport Plan |
| MGV | Mineral Goods Vehicle |
| NATA | New Approach to Appraisal |
| NNR | National Nature Reserve |
| $NO_2$ | Nitrogen Dioxide |
| $NO_x$ | Oxides of Nitrogen |
| ODPM | Office of the Deputy Prime Minister |
| $PM_{10}$ | Particulate emissions |

| | |
|---|---|
| PPG | Planning Policy Guidance |
| PPS | Planning Policy Statements |
| pSPA | Potential Special Protection Area |
| RIGS | Regional Important Geological Sites |
| ROWIP | Rights Of Way Improvement Plan |
| RSS | Regional Spatial Strategy |
| RSPB | Royal Society for the Protection of Birds |
| RTC | Road Traffic Collision |
| SA | Sustainability Assessment |
| SAC | Special Area of Conservation |
| SEA | Strategic Environmental Assessment |
| SLR | Sea Level Rise |
| SNCI | Sites of Nature Conservation Importance |
| SPA | Special Protection Area |
| SSSI | Site of Special Scientific Interest |
| SUDS | Sustainable Urban Drainage System |
| SWW | South West Water |
| TAG | Transport Analysis Guidance (see WebTAG) |
| WebTAG | Web-based Transport Analysis Guidance |
| WHS | World Heritage Site |

# NON-TECHNICAL SUMMARY

## Introduction

In early 2009, Cornwall Council began the process of preparing it's third Local Transport Plan (LTP), based on a review of the progress and outcomes of LTP2. LTP3, entitled 'Connecting Cornwall: 2030' is the document that will set out Cornwall Council's approach to tackling the current problems and future challenges and opportunities for the transport system within Cornwall. The LTP is the key strategic policy tool through which the Council exercises its responsibilities for planning, management and development of transport in Cornwall, for the both the movement of people and goods. The Local Transport Act 2000, as amended by the Local Transport Act 2008, requires transportation authorities to produce a LTP.

The Draft LTP3 Document presents:

- An analysis of local transport problems and opportunities;
- Cornwall Council's long-term strategy to tackle those problems, make the most of those opportunities, and deliver the objectives;
- A set of policies and related proposals; and
- A set of targets and performance indicators that can be used to monitor progress in delivering objectives.
- It is accompanied by the first 3 year implementation plan for the period 2011-2014.

It is a legal requirement for planning authorities to undertake a Strategic Environmental Assessment (SEA) of LTPs. The SEA Regulations apply to any plan or programme which relates either solely to the whole or any part of England, or to England and any other part of the UK.

The Directive's overall objective is to *'provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development…'.* (Article 1, SEA Directive)

In accordance with the Directive, an SEA has been undertaken to assess the environmental effects of the emerging proposals for Cornwall Council's LTP3. The SEA process allows for transparency in planning by involving statutory bodies, stakeholders and the public whilst integrating environmental considerations. This will help to achieve the goals of sustainable development.

This Environmental Report is the key output of the SEA and meets the requirements of the SEA Directive Article 5 (1). This Environmental Report presents the current state of the environment and its likely evolution without the plan, information on the likely significant effects on the environment of the

alternative options and the measures to prevent, reduce and as fully as possible offset any significant adverse effects on the environment.

## Methodology

SEA is an iterative process of gathering data and evidence, assessment of environmental effects, developing mitigation measures and making recommendations to refine plans or programmes in view of the predicted environmental effects.

The approach adopted for the SEA of LTP3 follows that set out in the Practical Guide [1] (ODPM et al, 2005). It involves the development of an assessment framework comprising a series of SEA Objectives, Assessment Criteria and Indicators. This framework is developed from an understanding of environmental problems and opportunities identified through a review of existing baseline information and a review of other plans, programmes and environmental protection objectives relevant to the plan area (i.e. Cornwall and its neighbours) and subject matter (transport).

The proposed framework has been developed with comments from Natural England, English Heritage, the Environment Agency and Cornwall Council's in-house specialists. Each element of the plan is considered against the framework to identify how it supports the achievement of the stated SEA objectives and how it can be improved to better support the SEA objectives. In doing this, the likely significant environmental effects are also predicted.

## Review of the Plans, Programmes and Environmental Protection Objectives (PPP Review)

The LTP will be affected by, and will affect, a wide range of other relevant plans, programmes and environmental objectives both within and outside Cornwall Council's jurisdiction. Identifying these other plans and programmes allows for the LTP to take advantage of potential synergies and to deal with inconsistencies and constraints.

For every SEA topic there has been an analysis of relevant plans and programmes at international, national, regional and local level. In addition, relevant plans and programmes have been considered for transport, spatial planning and sustainable development as these themes are crucial to the LTP development.

The collection of such a list could be potentially exhaustive, therefore the most relevant have been collated, which stands at over 180, and have been analysed with regard to:

- The SEA topic;

[1] A Practical Guide to the Strategic Environmental Assessment Directive, ODPM et al (2005)

- The other relevant plans, programmes and environmental protection objectives identified;
- How these objectives will be taken into account in the LTP;
- The corresponding SEA objective.

## Baseline Data

The SEA Directive requires the current state of the environment and the likely evolution of the environment without the plan to be described. A summary of the environment in relation to the transport system of Cornwall is produced which gives an indication of future trends where possible. This baseline information provides the basis for predicting and monitoring environmental effects and helps to identify environmental problems and alternative ways of dealing with them.

The baseline information provided is summarised according to the topics identified in the 2009 Scoping Report. The topics are: water; soil; material assets; biodiversity, flora and fauna; air quality; noise; climate energy factors; landscape/townscape and culture/heritage; health, safety and crime; accessibility; and economy. The information collected in 2009 has been updated where applicable for the assessment stage and also takes into account the feedback received as part of the Scoping Consultation.

## Assessment of Effects and Mitigation

### The SEA Objectives

The objectives of an SEA provide a means by which the environmental performance of the proposed LTP can be assessed. The SEA objectives were first presented in the Scoping Report (September 2009).

The SEA Directive does not specifically require the use of objectives or indicators in SEA, but they are a recognised way in which environmental effects can be described, analysed and compared. The SEA objectives are presented in Table 1 below.

Table 1: SEA Objectives

| SEA Topic | SEA Objective | |
|---|---|---|
| Water | WSM1 | Minimise the impact of the transport network on the quality and quantity of the county's water resources. |
| Soil | WSM2 | Reduce contamination and safeguard soil structure quality and quantity transport systems and infrastructure. |
| Material Assets | WSM3 | Minimise the impact of transport on mineral resources. |
| | WSM4 | Minimise the waste produced by transport systems and infrastructure. |
| Biodiversity, Flora and Fauna | BI1 | Conservation and enhancement of protected habitats and species and making a positive contribution to the local BAP. |

Table 1: SEA Objectives

| SEA Topic | SEA Objective | |
|---|---|---|
| | BI2 | Improvement of ecological coherence, habitat connectivity and climate change resilience and adaption. |
| Air Quality | AQ1 | Reduce social, economic and environmental costs of transport on air quality. |
| Noise | N1 | Reduce the noise impact of the transport system. |
| Climate-energy factors | CC1 | Mitigation: reduce the contribution of transportation to greenhouse gas emissions. |
| | CC2 | Adaptation: minimise the vulnerability of the transport infrastructure to climate change. |
| Landscape & townscape and culture & heritage | LTCH1 | Create places, spaces and buildings that enhance local distinctiveness, appearance and sense of place. |
| | LTCH2 | Protect and enhance buildings, sites, structures and heritage assets that contribute to the quality of countryside, townscape and the public realm. |
| | LTCH3 | Protect and enhance landscape character and local distinctiveness including Areas of Outstanding Natural Beauty and the World Heritage Site. |
| Health, safety and crime | HSC1 | Reduce the number of people killed and seriously injured in road collisions. |
| | HSC2 | Reduce levels of crime and fear of crime. |
| | HSC3 | Encourage healthier lifestyles particularly by encouraging more people to walk and cycle. |
| Accessibility | A1 | Improve accessibility of jobs, shops and other amenities for rural communities. |
| | A2 | Reduce the community severance effects of infrastructure. |
| | A3 | Provide an inclusive transport network that meets the needs of society and specific groups such as the disabled and elderly. |
| | A4 | Increase sustainable access to the countryside |
| Economy | E1 | Invest in transport systems that will create a strong and sustainable economy by addressing economic barriers to growth, in particular access and congestion. |

## LTP3 Alternative Options

Prior to the publication of the revised LTP Guidance in July 2009, Cornwall Council had begun its review of LTP2 and had started to develop a number of alternative options for consideration in the development of LTP3.

Five alternative options were developed through a series of LTP stakeholder events and assessed. The alternative options developed were:

- Focus on key strategic areas;
- Support medium sized communities to be more self sustaining;
- Intensive demand management;
- Improve connectivity; and
- Without the plan.

Assessing Alternative Options for LTP3

In conducting the SEA the likely significant environmental effects of a range of potential alternative options for the LTP3 were assessed. Each alternative option is tested against the SEA objectives which are environmental targets used to assess the environmental compatibility of the proposed LTP3, with positive as well as negative effects being considered and uncertainties about the nature and significance of effects noted.

Comparison of alternative plan strategies

*Intensive demand management* was the option strategy likely to have the fewest significant negative environmental effects with a positive rating of 71.1%.

This option aimed to focus demand management on main towns and roads tackling congestion, encouraging sustainable modes, and using incentives to implement policy. All the actions proposed, such as increased car parking prices, charging on congested routes, improving cycling and active travel routes, emphasising the importance of travel plans and planning and supporting high quality rail services, will all help to reduce the amount of traffic on Cornwall's roads. This plan option would support all the landscape, biodiversity and natural resource SEA objectives. It would also support the majority of the accessibility SEA objectives through improving active travel routes, promoting park and ride facilities and improving the rail network. It was uncertain how the strategy would effect the landscape SEA objectives which is where the strategy lost points.

*Supporting medium sized communities to be more self sustaining* was the second most compatible strategy with a positive rating of 45.5%. This strategy strongly supports the accessibility SEA objectives and would help reduce greenhouse gas emissions, improve air quality and noise levels. However, the strategy did not score favourably with the biodiversity SEA objectives.

The *improving connectivity* and *focusing on key strategic area* strategies both score poorly with positive ratings of 25-35%. Both scored low on the natural resources SEA objectives and landscape. However, both did support the economy objective.

*Without the plan* was the worst performing alternative strategy with a positive rating of 16.7%. By not implementing the plan biodiversity could potentially benefit from less construction requirements. However by doing nothing there will be no economic or accessibility benefits. Existing problems will potentially get worse affecting landscapes, air quality, noise and greenhouse gas emissions.

However, none of the options meet all the requirements in terms of the SEA and NATA criteria.

Following this assessment, review of the requirements of the 2009 LTP guidance and stakeholder consultation, it was considered appropriate to develop a preferred plan strategy that would encompass a broader range of social and economic issues.

Consequently, the preferred option draws on elements from all of the alternative options to provide a more balanced solution for LTP3. It has also been informed by public consultation undertaken on the proposed LTP3 Goals between July and September 2010.

## Assessment of the Preferred LTP3 Option

### Assessing Alternatives within the Preferred LTP3 Option

Compatibility tests were used to assess the Goals and Objectives within the preferred LTP option against the SEA objectives. A separate matrix was then constructed to assess the individual LTP3 policy packages against the SEA objectives.

The compatibility tests and policy assessments allow for both qualitative and quantitative analysis. The point of the assessments is not to complete the matrix, but to ensure that the proposal is as environmentally beneficial or sustainable as possible.

### Compatibility test of LTP3 goals

A compatibility test was undertaken on the LTP3 goals against the SEA objectives to identify potential inconsistencies and potential synergies. From this test, it was identified that there are potential conflicts between some of the goals and SEA objectives, but also evidence of strong positive support between the two. The assessment findings are summarised in Table 2 below.

Table 2: Summary of Compatibility Test findings - LTP3 Goals vs SEA Objectives

| LTP3 Goal | Compatibility with SEA Objectives |
|---|---|
| Climate change | Any actions requiring construction could have adverse effects on the natural environment and landscape characteristics, but with proper mitigation the impact could be reduced.<br>The goal supports other SEA objectives concerning the reduction of greenhouse gases and improving the accessibility of jobs, shops and other amenities for rural communities. |
| Supporting economic prosperity | The economic prosperity goal is unlikely to be compatible with the biodiversity SEA objectives and is likely to have negative impacts on the noise and air quality objectives due to an increase in output levels. It could also generate a negative effect on specific landscapes and place distinctiveness.<br>The goal supports SEA objectives to improve accessibility to services, especially for vulnerable groups and is likely to help lower crime levels and improve population health and wellbeing. |
| Respect and enhance the environment | Potential to support SEA objectives relating to the protection of biodiversity, landscape characteristics, reducing greenhouse gas emissions and the protection soil and mineral resources. In contrast the goal is unlikely to support SEA objectives to improve accessibility and economic prosperity due to conflicts between protecting the environment and potential development and increased traffic flows. |
| Healthy active lifestyle | The healthy active lifestyle goal is generally compatible with the SEA objectives. Improving and enhancing the natural environment has positive links to personal mental health and is likely to encourage more active travel. Improved accessibility and education on benefits of active travel will also help. Policy should, where appropriate, encourage active travel as a first option. |
| Community safety and individual wellbeing | This goal is generally compatible with the SEA objectives. Objectives and Policy should aim to support and safeguard place distinctiveness and heritage assets which have strong links to personal wellbeing. Transport systems should incorporate a high standard of safety initiatives to reduce injury and help reduce crime levels. |
| Equality & Opportunity | The equality and opportunity goal is compatible with SEA objectives which support accessibility, health, safety and the reduction of crime.<br>Conflicts will emerge if improved accessibility requires construction. This will potentially have a negative impact on the environment, landscapes and place distinctiveness. Policy should ensure these issues are considered within transport system decision making and that a stringent mitigation process is followed. |

## Compatibility test of LTP3 objectives

A compatibility test was undertaken on the LTP Objectives against the SEA objectives to identify inconsistencies and cooperation between their specific aims. The assessment has identified where policy can be formulated to make the

two sets of objectives more compatible resulting in a more sustainable transport plan which incorporates and respects economic prosperity, improved access and environmental considerations.

Overall, the LTP Objectives show good compatibility with the SEA Objectives. There are however, a number of areas where uncertainties and incompatibilities were identified. These are summarised in Table 3 below.

Table 3: Summary of Compatibility Test findings - LTP3 Objectives vs SEA Objectives

| LTP3 Objective | Compatibility of LTP3 Objectives |
|---|---|
| Ob1 Reduce reliance on fossil fuels and support low carbon technologies | Reducing reliance on fossil fuels and encouraging low carbon technologies will potentially support the SEA biodiversity objectives. However, any policies entailing construction could reduce the compatibility of the LTP Objective with the SEA Objectives. |
| Ob2 Support communities to live locally | Supports SEA objectives aimed at improving accessibility but could potentially have negative effects on landscapes and place distinctiveness. |
| Ob3 Adaptation and improving the transport network to ensure resilience to climate change | Objective 3 is unlikely to be compatible with SEA objective WSM3. Any interventions requiring construction works could impact mineral resources through use as construction materials, and may lead to effects on areas designated for mineral extraction by increasing demand. Effects are also likely to occur to biodiversity and landscapes. |
| Ob4 Improve connectivity | The least compatible LTP objective. It is unlikely to be compatible with SEA Objective WSM3, WSM4, BI2 and CC1. Improved connectivity implies an increase in the number of routes and volume of travel. Also any objective which requires construction could affect mineral resources, biodiversity, landscapes and noise and air quality levels. |
| Ob5 Resilient and reliable transport system for goods and services | Potential to be incompatible with several SEA objectives. These relate to biodiversity, noise, air quality and climate change. |
| Ob6 Supports rural vitality and integrity of our town centres | Economic investment resulting in development could have a negative effect on the natural environment, but a holistic approach to formulating policy and the inclusion of mitigation plans could ensure specific areas/habitats are avoided or compensated for. |
| Ob7 Reduce the need to travel | The most compatible with the SEA objectives. Any reduction in motor vehicle travel will potentially improve all biodiversity, landscape, air and noise, and climate change objectives. However, should this shift be promoted through the relocation or development of new retail or employment sites there exists potential for tension with the SEA Objectives. |
| Ob8 Make the most of opportunities to protect and enhance the environment | Policy should promote the integration of habitat corridors alongside any interventions. Policy should also promote sustainable modes and the |

Table 3: Summary of Compatibility Test findings - LTP3 Objectives vs SEA Objectives

| LTP3 Objective | Compatibility of LTP3 Objectives |
|---|---|
| | safeguarding and potential avoidance of protected sites/habitats. |
| Ob9 Minimise the use of natural resources and minimise waste | Supports SEA objectives to protect mineral resources, the environment, landscapes, and the reduction of air, noise and greenhouse gas emissions. |
| Ob10 Provide sustainable access to Cornwall's environment | Could require construction to improve access so could potentially have a negative effect on the natural environment and resources. It will support SEA objectives to improve accessibility throughout the county. |
| Ob11 Improve the health of our communities through active travel | Improving opportunities for active travel could potentially improve accessibility in some cases potentially supporting the accessibility SEA objectives. |
| Ob12 Increase awareness and an understanding of the health benefits of integrating cycling and walking into our daily lives | Supports SEA objective HSC3 which encourages healthier lifestyles. It is not applicable to the other SEA objectives. |
| Ob13 Reducing crime and the fear of crime in using transport | Potential to support the accessibility and safety SEA objectives if the reduction of crime is integrated into road safety policy and if security and waiting times are improved for services. |
| Ob14 Improving road safety | Supports the crime and road safety SEA objectives and did not have any other links to SEA objectives |
| Ob15 Reduce noise and air quality impacts | Reducing noise and air quality impacts will potentially support SEA objectives to protect and enhance the environment and improve landscapes and townscapes. |
| Ob16 Improving access to employment, education, health and leisure | Improved connectivity implies an increase in the number of routes and volume of travel. Even if transport is sustainable it could still have a negative effect in areas where there were originally no transport routes. Also any objective which requires construction will affect mineral resources, biodiversity, landscapes and noise and air quality levels. |
| Ob17 Improving accessibility to public transport (Physical and infrastructure) | Likely to require construction potentially having a negative effect on the environment. Objective 17 will support the accessibility and economic SEA objectives. |
| Ob 18 Encourage community participation in shaping and delivering transport services for their communities. | Will support several of the SEA objectives. By encouraging community participation the public will have the opportunity to highlight problem areas, for example, locations which require safety improvements or improved accessibility. The public could also help identify specific landscape/townscape features requiring protection from the transport network helping to safeguard place distinctiveness. |

Policy assessment

A series of policies have been developed to help deliver the 18 LTP Objectives. The SEA considered the policies under each of the LTP3 Objectives. A series of 18 policy assessment tables (one for each objective) were produced to identify the potential significant environmental effects associated with each set of policies. Both positive and negative effects were identified and a judgement made on the potential geographic and time scales that these effects would be seen in.

The significant environmental effects of the proposed LTP3 policy on the SEA objectives is summarised below along with any cumulative effects which are likely to occur. The assessment findings are summarised in Table 4 below.

Table 4: Summary of Policies Assessment

| LTP3 Objective | Potential Environmental Effects of LTP3 Policies |
|---|---|
| Ob1 Reduce reliance on fossil fuels and support low carbon technologies | Anticipated to be positive, with the policies contributing to, or strongly contributing to, the achievement of the SEA Objective in most cases. There are some areas of uncertain effects identified, which in most cases can be mitigated through policy to yield a more positive effect. |
| Ob2 Support communities to live locally | Generally contribute positively to the SEA Objective relating to health, wellbeing and access. However, there are a number of uncertain and possibly mixed effects identified. The mixed effects largely stem from the likelihood of construction and development, and the direct effects associated with this on land take, water demand, biodiversity, landscape, townscape and the historic environment. There are also likely to be effects on air quality and noise during operation. |
| Ob3 Adaptation and improving the transport network to ensure resilience to climate change | Scores poorly against a number of objectives, and is likely to have mixed effects in terms of others, particularly in the short term. This the result of the temporary effects of the likely construction requirement associated with the policies. The focus of the policies means that the Objective is considered unlikely to have an effect in relation to improving access in the terms expressed here, although by improving resilience against climate change there may be some indirect cumulative effect in terms of maintaining access across the County. |
| Ob4 Improve connectivity | The majority of policies under Objective 4 of the LTP could have mixed support for the SEA objectives. Improving connectivity through ICT infrastructure and expanding Cornwall's railway network is likely to require construction. Land-take for road widening and HGV compatibility, especially from farmers could have an adverse effect on agricultural land. |
| Ob5 Resilient and reliable transport system for goods and services | Tend to support the majority of SEA objectives; however there are some potential short-term negative effects. Enhancing existing bus services and developing new park and ride schemes will require land take and construction in the short term. This could potentially have negative short-term effects on; soil |

Table 4: Summary of Policies Assessment

| LTP3 Objective | Potential Environmental Effects of LTP3 Policies |
|---|---|
| | quality, mineral resources, construction waste, and biodiversity. However, in the long term more efficient public transport links will reduce the amount of private motor car travel reducing emissions and soil acidification. |
| Ob6 Supports rural vitality and integrity of our town centres | Several instances were identified where there could either be positive or negative effects as result of the policies. For example, enhancing existing bus services and development of interurban passenger transport hubs to facilitate the integration of bus, taxi and/or rail, will require land take and construction in the short term. This could potentially have negative effects on biodiversity. However, in the long term more efficient public transport links will reduce the amount of private motor car travel and the need for more new routes. |
| Ob7 Reduce the need to travel | Potential short-term negative effects were identified for SEA objectives WSM3, WSM4, BI1 and BI2. There is the potential for either positive or negative effects for SEA objectives A2 and A3 and the policy are likely to directly support HSC3 and E1. |
| Ob8 Make the most of opportunities to protect and enhance the environment | The Policies support the SEA objectives or have no significant effect. There are no predicted negative effects arising from the proposed policy. Incorporating best practice techniques to the planning, co-ordination and delivery of construction, surfacing operations and maintenance activities to mitigate the environmental impact upon residential uses, public open spaces, natural areas, settlements and rural areas, will significantly help in enhancing and respecting the environment. |
| Ob9 Minimise the use of natural resources and minimise waste | Positive and negative effects on the SEA objectives. There are also areas where it is not clear what effect the policies would have. |
| Ob10 Provide sustainable access to Cornwall's environment | Both positive and negative effects on the SEA objectives. Some of these negative effects will be felt over a short timescale, but others would potentially be felt for the whole life of LTP3. |
| Ob11 Improve the health of our communities through active travel | One potential negative effect was identified. Making active travel options more accessible and improving linkages to sustainable public transport networks will reduce the amount of motorised traffic users. This will have beneficial effects for biodiversity. However the upgrade and construction of facilities will require County wide construction improvements having a potential direct negative effect on existing biodiversity, habitats and sites. |
| Ob12 Increase awareness and an understanding of the health benefits of integrating cycling and walking into our daily lives | Direct and indirect positive effects were identified. For example, Promoting positive attitudes towards walking and cycling and encouraging their use through the marketing and publicity, special events and education programs will potentially reduce traffic levels and reduce soil contamination through improved air quality supporting SEA objective WSM2. |

Table 4: Summary of Policies Assessment

| LTP3 Objective | Potential Environmental Effects of LTP3 Policies |
|---|---|
| Ob13 Reducing crime and the fear of crime in using transport | The policies under Objective 13 of the LTP tend to support the SEA objectives or have no significant effect. However, there is an area of uncertainty concerning the landscape SEA objectives. |
| Ob14 Improving road safety | The effects of LTP Objective 14 are generally anticipated to be positive, with the policies contributing to, or strongly contributing to, the achievement of the SEA objectives in some cases. There is one area of uncertainty identified regarding air quality levels, which in most cases can be mitigated through policy to yield a more positive effect. |
| Ob15 Reduce noise and air quality impacts | The effects of LTP Objective 15 are generally anticipated to be positive, with some of the policies contributing to, or strongly contributing to, the achievement of the SEA Objectives where they apply. Effects against many of the SEA Objectives are likely to be neutral. The policy directly supports SEA objectives AQ1 and N1 and indirectly supports CC1. |
| Ob16 Improving access to employment, education, health and leisure | There are likely to be positive long term effects from implementing this policy. Improving the design layout of new developments and integrating private partners into the process of providing transport networks will result in more efficient services in the future. This will benefit the environment in the long term due to a reduction in private motor travel. |
| Ob17 Improving accessibility to public transport (Physical and infrastructure) | Taking a whole journey approach when planning new public transport facilities and services to improve integration and enable all abilities and social groups to use them supports all three of these accessibility SEA objectives. Also providing affordable services for those who need it most will help with connecting deprived communities to other areas and help reduce isolation. Improving integration of public transport systems will also potentially help to create sustainable access to the countryside. |
| Ob 18 Encourage community participation in shaping and delivering transport services for their communities. | Through effective community engagement it is likely that there would be a number of positive effects in terms of supporting the objectives in relation to biodiversity, landscape, townscape, cultural heritage, health and wellbeing. |

## Mitigation

The SEA Regulations require that mitigation measures are considered to prevent, reduce or offset any significant negative effects on the environment of implementing the plan. The measures are known as 'mitigation' measures and the guidance states that proactive avoidance of adverse effects, as well as actions are taken after potential effects are identified.

The assessments identified specific areas where mitigation actions could reduce negative environmental effects of the preferred option Goals, Objectives and Policy. A summary of recommended mitigation is in Table 5 below.

Table 5: Recommended Mitigation

| SEA Topic | Recommended Mitigation |
|---|---|
| Water | Use of SUDs for transport schemes with significant run-off implications.<br>Transport infrastructure to be designed to be resilient to flooding events.<br>Improve performance in pollution control during construction and maintenance activities.<br>Monitoring of water quality for schemes.<br>Active promotion of sustainable drainage and water supply for schemes.<br>Identify measures to promote mitigation of additional water demand from development in Core Strategy.<br>Efficient management of vulnerable water bodies.<br>Flood Risk Assessments for development of infrastructure.<br>EIA to consider details for major schemes. |
| Soil | Safeguard good quality agricultural land.<br>Minimise land take for new developments.<br>EIA to consider details for major schemes. |
| Material assets – mineral resources | Schemes to use as much recycled aggregate as possible. Where primary aggregates are required, local stone should be used where possible to reduce traffic and transport emissions.<br>Develop targets for the use of recycled materials.<br>Encourage the re-use of on-site material.<br>New transport routes to avoid mineral sites.<br>New transport routes should consider opportunities to better connect mineral sites, particularly to rail and sea ports.<br>EIA to consider details for major schemes. |
| Material assets – waste | Use of site waste management plans to reduce waste where possible.<br>Waste materials to be recycled where possible.<br>Waste to be taken to nearest available site to minimise transport (see Managing Waste: A guide to businesses in Cornwall, April 2010)<br>(NB: all of above are determined by market and will often happen as legally required or cheapest option)<br>Maximise opportunities for waste to be transported by rail in future e.g. protecting sites near railway. Support measures for waste vehicles to be low carbon.<br>Maximise use of recycled waste locally to reduce transport and support local economy.<br>Location of waste transfer sites to be considered in consultation with transport policy to consider accessibility implications.<br>EIA to consider details for major schemes. |
| Biodiversity, flora and fauna | Careful route planning to avoid damage of designated habitat sites.<br>Mitigation hierarchy of avoidance, reduction and compensation.<br>With careful planning, potential for LTP to bring about improvements in habitat connectivity as transport corridors can serve as wildlife corridors linking up sites.<br>EIA to consider details for major schemes. |
| Air Quality | Transport schemes in strategic towns to consider implications of air pollution.<br>Need for a plan to include management of traffic in town centres, policies to reduce the need to travel and encourage use of non-car modes and low |

Table 5: Recommended Mitigation

| SEA Topic | Recommended Mitigation |
|---|---|
| | carbon alternatives.<br>Focus on improving existing AQMAs.<br>Air quality monitoring programmes<br>EIA to consider details for major schemes. |
| Noise | Policies and developments to encourage walking, cycling and use of public transport over use of car, alongside reducing overall need to travel.<br>Noise reducing road surfacing already used as standard on many schemes. Road works to take account of noise impacts on local population<br>Increased public transport provision should use modern, low noise vehicles.<br>Noise monitoring programmes.<br>EIA to consider details for major schemes. |
| Climate-energy factors | Integration of planning and sustainable transport principles.<br>Encouragement of public transport, walking and cycling through making town centres 'pedestrian friendly' and infrastructure improvements.<br>Encourage the use of travel plans.<br>Increased car parking prices and promotion of short-term parking.<br>Invest in low carbon vehicles.<br>Adapt the transport network to the effects of climate change.<br>More integration of services, use of smartcard technology.<br>Improve bike-rail integration.<br>Encourage and promote active travel.<br>Promote 'eco-driving' and car sharing initiatives.<br>Support development of spatial planning policies that reduce the need to travel.<br>Introduction of low carbon street lighting. |
| Landscape, townscape, culture and heritage | Green infrastructure programmes including tree and urban woodland plantings/ landscaping<br>Protection of urban parks/recreation areas<br>Urban public access strategy<br>Use Cornwall Landscape Character Best Practice Guide throughout design process of any developments.<br>Local design guides to promote local distinctiveness.<br>Transport schemes should take into consideration impact upon heritage assets.<br>Highway design guide to take on board local distinctiveness.<br>Rural roads protocol required to address overall landscape impacts.<br>Transport schemes in and around strategic towns to consider design, landscaping and lighting solutions to minimise landscape impact.<br>Strategic landscape and woodland planting around strategic areas to complement local landscape character<br>Strategic planning of large scale development where there will be moderate/major impact on landscape.<br>Careful route planning to protect and potentially enhance designated landscape areas. |
| Health, safety and crime: Road Safety | Appropriate engineering measures need to be ensured.<br>Support of economic growth needs to be taken forward hand in hand with |

Table 5: Recommended Mitigation

| SEA Topic | Recommended Mitigation |
|---|---|
| | road safety education.<br>Monitoring of accident levels will be required to assess impact of change.<br>Focus should be on measures that reduce speed and therefore reduce the number of collisions and severity of injury.<br>Engineering measures to reduce speed need to be designed to reduce emissions.<br>Road routes between settlements will need to be carefully analysed to assess whether appropriate measure need to be implemented to help reduce RTC's. Speed enforcement may be required along improve network. |
| Health, safety and crime: Crime | Vehicle crime in car parks can be limited via secure car park facilities. A high parking enforcement presence should control on-street vehicle offences.<br>Any road improvements to have speed controls as necessary.<br>Ensure efficient lighting, especially urban centres.<br>Introduction of rural roads protocol |
| Health, safety and crime: Healthier lifestyles | All developments in strategic towns need to ensure facilities and measures to allow and encourage access by foot/bike are implemented within the earlier design stages.<br>The location and variety of development needs to be carefully considered to ensure access by foot/bike are preferable<br>All measures to improve connectivity to maximise the opportunity to link in cycle/pedestrian journeys.<br>Compulsory travel plans for certain businesses and new developments encouraging active travel. |
| Accessibility (access to services, countryside, reducing severance and an inclusive network) | Careful route planning to consider severance on a strategic or very local level.<br>Flexible and frequent services, especially during peak times.<br>Investment in community transport/rural public transport will be necessary to enable those living in rural areas to make use of town facilities.<br>Develop a whole journey approach to developing transport infrastructure.<br>Combine public and private money when developing new transport infrastructure for specific developments.<br>Opportunity for reactive works to improve access to countryside |
| Economy | Congestion reduction measures including town centre parking management in conjunction with provision of alternatives including park and ride.<br>High quality public transport (including bus, rail, ferry, community transport) provision to these towns.<br>High quality walking, cycling and public transport routes within medium sized towns to support self sufficiency<br>Need to balance demand management measures with need to maintain thriving economies in town centres – limited provision for short stay and disabled parking alongside high quality public transport access into town centres<br>Need to balance improving connectivity with demand management on congested routes and in town centres.<br>Need to deliver LTP3 with transport systems that support economy. We need to listen to local people and find out what they want for their local community, economy and the future of the next generation |

These recommendations have been reviewed by Cornwall Council in the production of the Consultation Draft LTP3 document. In many cases amendments have been made to the wording of the Policy or Objective text to address the potential adverse effects. In other cases wording has been altered to emphasise the potential positive effects that have been predicted.

## Implementation & Next Steps

### Monitoring

The SEA Directive requires monitoring the implementation of the plan. Monitoring allows the actual significant environmental effects of implementing LTP3 to be tested against those predicted. It helps to ensure that any problems which arise during implementation, whether or not they are foreseen, can be identified and future predictions can be made more accurately.

The monitoring framework proposes measures that will monitor any significant environmental effects and uncertainties identified for LTP3. Cornwall Council is currently developing a Monitoring Strategy, which will allow the actual effects of LTP3 to be tested against the predicted effects, enabling significant problems to be identified and tackled over time. The monitoring framework can be viewed in Table 6 below.

Table 6: Monitoring Framework

| SEA Objective | | Indicators | Possible sources/owners of information |
|---|---|---|---|
| Water | WSM1<br>Minimise the impact of the transport network on the quality and quantity of the county's water resources. | Flood risk and flooding events on the transport network<br>River water quality.<br>Abstraction volumes<br>Changes in water demand. | Environment Agency<br>South West Water – drought planning, water resources management. |
| Soil | WSM2<br>Reduce contamination and safeguard soil structure quality and quantity transport systems and infrastructure. | Contamination Records | Environment Agency<br>Cornwall Council |
| Material Assets | WSM3<br>Minimise the impact of transport on mineral resources. | Extraction tonnages for transport schemes | Annual Minerals and Waste Monitoring Report<br>Cornwall Council |
| | WSM4<br>Minimise the waste produced by transport systems and infrastructure. | Disposal tonnages from transport projects | Annual Minerals and Waste Monitoring Report<br>Cornwall Council |

Table 6: Monitoring Framework

| SEA Objective | | Indicators | Possible sources/owners of information |
|---|---|---|---|
| Biodiversity, Flora and Fauna | BI1<br>Conservation and enhancement of protected habitats and species and making a positive contribution to the local BAP. | BAP species records<br>South West Nature Map outputs | Natural England<br>Biodiversity South West |
| | BI2<br>Improvement of ecological coherence, habitat connectivity and climate change resilience and adaption. | Length of ancient/important hedgerows retained/enhanced<br>Length/area of new habitat created that forms linkages with nature map areas. | Cornwall Council |
| Air Quality | AQ1<br>Reduce social, economic and environmental costs of transport on air quality. | Greenhouse gas emissions from different transport modes<br>Levels of modal shift to using more sustainable modes<br>Measure related to health and environmental impact of air pollution e.g. admissions due to breathing related problems, loss of lichens due to air pollution.<br>Action Plans within existing AQMAs | Department for Environment and Climate Change<br>Department for Transport<br>Cornwall Council<br>Environment Agency<br>Health authority<br>Cornwall Wildlife Trust |
| Noise | N1<br>Reduce the noise impact of the transport system. | Noise maps<br>Length of low noise surfacing included in new roads & maintenance operations.<br>No of transport related noise nuisance complaints | DEFRA<br>Cornwall Council<br>Highways Agency<br>Cornwall Council |
| Climate-energy factors | CC1<br>Mitigation: reduce the contribution of transportation to greenhouse gas emissions. | Emissions from transport<br>Action Plans within existing AQMAs<br>Noise and air quality monitoring<br>Project level effects | Automatic Urban and Rural Network (Defra).<br>Cornwall Council<br>Environment Agency |

Table 6: Monitoring Framework

| SEA Objective | | Indicators | Possible sources/owners of information |
|---|---|---|---|
| | CC2<br>Adaptation: minimise the vulnerability of the transport infrastructure to climate change. | NI188 Adapting to climate change<br>Flood risk and flooding events on the transport network | Cornwall Council |
| Landscape & townscape and culture & heritage | LTCH1<br>Create places, spaces and buildings that enhance local distinctiveness, appearance and sense of place. | Percentage of lamps changed.<br>Number of community agreements on lighting levels.<br>Percentage of dimmed lighting in use.<br>Percentage of projects with some form of landscape/townscape /design guide assessments.<br>Levels of tranquillity and light pollution | Cornwall Council 'Invest to Save' Progress Reports<br>Cornwall Council<br>CPRE |
| | LTCH2<br>Protect and enhance buildings, sites, structures and heritage assets that contribute to the quality of countryside, townscape and the public realm. | | |
| | LTCH3<br>Protect and enhance landscape character and local distinctiveness including Areas of Outstanding Natural Beauty and the World Heritage Site. | | |
| Health, safety and crime | HSC1<br>Reduce the number of people killed and seriously injured in road collisions. | Road casualty statistics | Devon and Cornwall Police Constabulary<br>Cornwall Council<br>Highways Agency |
| | HSC2<br>Reduce levels of crime and fear of crime. | Crime statistics | Devon and Cornwall Police Constabulary<br>Cornwall Council<br>Cornwall Project |
| | HSC3<br>Encourage healthier lifestyles particularly by encouraging more people to walk and cycle. | Health statistics<br>Number of people walking and cycling | National Health Service<br>Cornwall Council |
| Accessibility | A1<br>Improve accessibility of jobs, shops and other amenities for rural communities. | Number and frequency of transport services. | Cornwall Council & Partners |

Table 6: Monitoring Framework

| SEA Objective | | Indicators | Possible sources/owners of information |
|---|---|---|---|
| | A2<br>Reduce the community severance effects of infrastructure. | Threshold of local amenities and services.<br><br>Numbers of people walking and cycling<br>Rail and bus patronage<br>Access to services by public transport, walking or cycling | |
| | A3<br>Provide an inclusive transport network that meets the needs of society and specific groups such as the disabled and elderly. | | |
| | A4<br>Increase sustainable access to the countryside | | |
| Economy | E1<br>Invest in transport systems that will create a strong and sustainable economy by addressing economic barriers to growth, in particular access and congestion. | GVA<br>Congestion levels (NI167) | Cornwall Council |

## Consultation

Comments are invited on the approach and findings set out in this Environmental Report and the draft LTP3 document. We would welcome any comments you may have, but particularly seek comment on the following questions:

Do you agree with the approach taken for this SEA? If not, please could you explain why?

Do you agree with the findings of the SEA? If not, please could you explain why?

Do you have any recommendation for further indicators or parameters to include in the monitoring framework of the SEA?

Comments may be returned using the form supplied with the LTP or by writing to the postal or email address below. Any comments should be returned by 21 January 2011.

The results of the public consultation will be analysed and will be reflected in the adopted LTP3: Connecting Cornwall 2030 strategy which will be published on 31st March 2011.

If you wish to provide comments or feedback please contact:

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If you would like to request this document in another format, please contact:

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