

LTP Goal: Climate Change:

Objective 1: Reduce reliance on Fossil Fuels

Policies as of 8/10/2010:

Develop a comprehensive smarter choices strategy that will;

a) Establish long-term objectives and opportunities, b) Set priorities for short-term action through a 3-year action plan including the development of an annual work programme and c) Outline a framework for monitoring progress.

Encourage developers to include transport demand management programmes and infrastructure.

Travel Plans will be required for all developments that are deemed likely to have an impact on the local transport network, including the following;

i. residential, commercial, employment and educational developments;

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v. development proposals in locations where traffic conditions have been identified as a matter of concern by the local highway authority.

Prioritise investment into sustainable travel infrastructure.

Adopt a leadership role improving and promoting the services and facilities available to Council employees for car free commuting and the reduction of business mileage. Through successful leadership we will encourage other organisations to support a program of smarter choices.

Work with partners in the public and private sector to support and encourage the development of alternative fuels infrastructure and support an emerging low carbon economy in the County.

Investigate the feasibility of using pricing mechanisms in order to encourage a shift to low carbon transport.

Involve, inform and educate the public in order to foster awareness of climate change and of local initiatives to reduce air pollution, and work with interested partners towards this goal.

Work with operators to reduce emissions related to the movement of both light good and heavy goods vehicles.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects Identify other receptors with interrelated effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long				
WSM1: Minimise the impact of the transport network on the quality and quantity of the county's water resources.	19 surface sources operated by South West Water. Total of 79,813 million litres. In the South West river basin district 23 per cent of waters meet good ecological status and 41 per cent do not meet good status (449 water bodies). The majority of water bodies that fail to meet good status fail because of the phosphorus, fish and diatom elements of classification. Surface runoff from transport routes could be affecting water quality.	+/-	+	+	0	+	+	Medium	Potential for beneficial effects with regard to biodiversity through the 'knock on' effects of improved air quality due to less emissions and the improvement of surface water runoff due to less motor vehicle use.	Consideration of water quality effects through project level EIA of qualifying schemes.	Sustainable travel initiatives are generally small scale works, which are not likely to have a significant effect on water quality. Land take is expected to be minimal. In the long term reducing a reliance on fossil fuels and the use of private motor vehicles will improve surface runoff and water quality. Possibility of localised negative effects if construction required
WSM2: Reduce contamination and safeguard soil structure quality and quantity from transport systems and infrastructure.	Shillet is most common soil type. Tend to be low in phosphates with impeded drainage, are difficult to manage in winter, but are highly productive if drained properly. 0.1% of agricultural land is Grade 1, 8% is Grade 2 and 61.2% is Grade 3a and 3b,	+/-	+	0	0	+	+	Medium / High	Potential biodiversity benefits from improved air quality and soil. Landscapes will potential benefit from the protection of areas of good quality agricultural land.	Safeguard good quality agricultural land. Consideration of land take, land use, severance, soil quality and contamination effects through project level EIA of qualifying schemes.	These projects may reduce the number of private car journeys, so may reduce emissions and have a positive effect on soil quality; however the effect is not likely to be significant. The policies may help to reduce land take in the long term for road schemes.

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	the remainder is urban or poor. Contaminated land has largely arisen due to historical industrial activity, mainly mining.										
WSM3: Minimise the impact of transport on mineral resources.	Minerals currently exploited in the county are granite for aggregates and building stones, china clay, slate and sandstone. 2009 production of primary aggregates in Cornwall was around 1.43 million tonnes; this is principally from 12 quarries throughout the County. China clay production contributes around £100 million to the UK balance of payments and makes a significant contribution to Cornwall's local economy each year. 2009 production of china clay was estimated to be in the region of 1.6 million tonnes.	+	+	0	0	0	+	Medium		Recycling initiatives Encouraging the use of recycled materials in construction aggregates. Consideration of waste generation and disposal through EIA of qualifying schemes.	By implementing these policy initiatives to encourage more sustainable transport systems and infrastructure, in the long term there is likely to be a reduction in transport infrastructure construction. When more people are using sustainable modes and an integrated alternatives network has been created there will be less need for major new route development. This in turn will result in a reduction of mineral aggregates required for construction and will ease pressure on extraction. Similarly, reduced construction and focussing on improvements in travel planning and management is likely to positively contribute to reducing the amount of waste generation linked to transport.
WSM4: Minimise the waste produced by transport systems and infrastructure.	Construction and demolition waste is the largest waste stream, 452,000 tonnes produced in 2008/09, 39%	+	+	0	0	0	+	Medium			

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	sent to landfill. Municipal waste arising 314,311. 63% sent to landfill. Need to reduce landfilling. Planning appeal logged for 240,000 tonne capacity energy from waste plant.										
BI1: Conservation and enhancement of protected habitats and species and making a positive contribution to the local BAP.	41 BAP habitats found in Cornwall covering some 19652 ha overall. There are currently 496 County Wildlife Sites in Cornwall covering nearly 33,000 hectares or 10% of the county's land area.	+	+	+	0	+	+	Low		Mitigation hierarchy of avoidance, reduction and compensation. Protection of designated sites.	Prioritising investment into sustainable travel infrastructure and developing a comprehensive smarter choices strategy incorporating travel plans will potentially limit the amount of private motor car travel. This will reduce the amount of green house gas emissions and reduce traffic flows benefiting in the long term biodiversity.
BI2: Improvement of ecological coherence, habitat connectivity and climate change resilience and adaption.	166 Sites of Special Scientific Interest. 17 SACs, 3 Inshore Marine cSACs and 16 SPAs.	0	0	0	0	0	0	Medium	0	Consideration of ecology and biodiversity effects through project level EIA of qualifying schemes.	The policies are unlikely to affect the Objective.
AQ1: Reduce social, economic and environmental costs of transport on air quality.	2 AQMAs; Bodmin AQMA and Camborne, Pool and Redruth.AQMA. Pollutants of most concern are traffic-related fine airborne particulate matter and Nitrogen dioxide. A third	++	++	+	0	+	++	Medium	Reducing air pollution will increase the quality of landscapes and townscapes and their associated biodiversity. Potential improvement of soil acidity levels.	Travel plans and local initiatives to reduce poor air quality should seek to support reductions in existing AQMAs where appropriate.	Reducing a reliance on fossil fuels through more sustainable transport modes will improve air quality.. A shift towards a low carbon economy and reducing emissions from private motor car and also light and heavy goods vehicles will certainly support this SEA objective.

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	AQMA is being considered for Tideford, again traffic related pollution. Air quality in the county is generally good.									Air quality monitoring and targets within the 3-year action plans. Travel plans should seek to prioritise use of sustainable and low carbon transport over the private car. Consideration of air quality effects through project level EIA of qualifying schemes.	
N1: Reduce the noise impact of the transport system.	Cornwall Quality of Life Survey indicated that 18.3% of respondents, in their opinion, thought vehicle noise was a 'very big' or 'fairly big' problem when considering contributors to neighbourhood and environmental problems. Over 40% felt it was 'not a very big problem' and fewer than 40% felt it was 'not a problem at all'.	+	+	0	+	+	+	Medium	A reduction in noise has the potential to beneficially affect personal wellbeing, both through reducing nuisance and improving tranquillity and setting of landscapes. Reducing traffic levels and therefore noise disturbance may also be of benefit to biodiversity.	Travel plans should seek to prioritise use of sustainable and low carbon transport over the private car. Consideration of noise effects through project level EIA of qualifying schemes. Noise monitoring and targets within the 3 year action plans Introduction of noise reducing materials in any construction.	A shift towards low carbon transport and the resulting, more efficient traffic flows will potentially reduce noise levels from motor vehicles.

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CC1: Mitigation: reduce the contribution of transportation to greenhouse gas emissions.	8.16 tonnes of CO ₂ were released per capita in Cornwall in 2006. Lowest per capita emissions were found in the Isles of Scilly, with 5.73 tonnes. Road transport accounted for 29% of CO ₂ emissions in Cornwall for 2006. Two thirds of Cornish road transport carbon emissions are from private cars.	++	++	+	0	++	++	Medium	Biodiversity, water and soil will benefit from a reduction in emissions.	Travel plans should seek to prioritise use of sustainable and low carbon transport over the private car. Establishing long-term objectives and opportunities in tandem with short-term action through a 3-year action plan including the development of an annual work programme and a system to monitor progress, will help to implement the above policies and help identify areas which need focusing on. Consideration of air quality and carbon effects through project level EIA of qualifying schemes.	The policies should provide direct support for the Objective.
CC2: Adaptation: minimise the vulnerability of the transport infrastructure to climate change.	DEFRA and the Environment Agency have identified which coastal sites and features are most at risk within the next 20 years of sea level change. Mullion Harbour and Godrevy feature in the high risk	0	0	0	0	0	0	Medium	0	0	The policies are unlikely to affect the Objective.

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	category and Boscastle Harbour falls into the medium risk category. Over the next 100 years around 15-30 km of additional roads in Cornwall are liable to become inundated by extreme tide levels. 3-5km of these are A roads, 2-4km are B roads, 5-9km C roads and 6-11km are unclassified roads.										
LTCH1: Create places, spaces and buildings that enhance local distinctiveness, appearance and sense of place.	12,490 Listed Buildings, 1,872 Scheduled Monuments, 145 Conservation Areas (4070 ha) 36 Registered Parks and Gardens (3720 ha), 2 Registered Battle Fields (115 ha), Cornish Mining World Heritage Site 18, 222 ha; 5.5% of Cornwall.	+	+	0	+	+	+	Medium	0	Consideration of Landscape, townscape and cultural heritage effects through project level EIA of qualifying schemes.	The policies above will not only reduce a reliance on fossil fuels but could potentially reduce noise nuisance levels and improve air quality. This will help in enhancing distinctiveness and sense of place by improving the built and natural landscape.
LTCH2: Protect and enhance buildings, sites, structures and heritage assets that contribute to the quality of countryside, townscape and the public realm.		+	+	0	0	+	+	Medium	0	Travel plans should seek to prioritise use of sustainable and low carbon transport over the private car.	A reduction in motorised traffic flows will improve landscapes and enhance place distinctiveness.
LTCH3: Protect and enhance landscape character and local distinctiveness including Areas of Outstanding		+	+	0	0	+	+	Medium		Travel plans should also be applied to developments proposed within any designated areas. There should also be strict monitoring with	

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Natural Beauty and the World Heritage Site.										these areas.	
HSC1: Reduce the number of people killed and seriously injured in road collisions.	KSI total was 15% below the national baseline in 2006. Targets suggest a reduction of 30% by 2010/11 in KSI incidents.	+	+	0	0	+	+	Low	A change in frequency or severity of collisions will potentially have a corresponding effect on the potential for soil or land contamination as a result.	Focus on promoting sustainable modes and active travel encouraging a move away from using the private motor car. Consider measures for reducing traffic speeds and creation of traffic free routes where possible. Consideration of effects on human health for transport users and adjacent population through project level EIA of qualifying schemes.	There is a possibility that a shift away from private motor car to other modes will indirectly improve the KSI statistics. But an increase in uptake of other modes may result in a greater probability of collision. Encouraging travel by rail should reduce the opportunities for fatal accidents and reduce injuries.
HSC2: Reduce levels crime and fear of crime.	Generally centred on speeding offences, drink driving offences and mobile phone use. 2005 there were 11,964 speeding offences compared to 6,289 in 2008.	0	0	0	0	0	0	Medium	0	0	These policies are not likely to have a significant effect on this objective.
HSC3: Encourage healthier lifestyles particularly by encouraging more	The health of people in Cornwall is generally better than the England average. Both male and female life	+	+	0	+	+	+	High	Biodiversity should benefit from reduced motor vehicle use. Reduction in noise levels and poor air quality near improved	Travel plans should focus on active travel options in the first instance.	The above policies have the potential to support this SEA objective. Local initiatives to and any development or business travel plans should use this opportunity to encourage

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people to walk and cycle.	expectancies are higher than the England average. Over the last ten years early death rates from heart disease and stroke as well as early death rates from cancer have been declining and remain below the England average.								routes. Reduction in greenhouse gas emissions. Improved landscape tranquillity and setting through reduced traffic flows.	Consideration of effects on human health for transport users and adjacent population through project level EIA of qualifying schemes.	active travel to not only reduce greenhouse gas emissions, but also to improve physical health.
A1: Improve accessibility of jobs, shops and other amenities for rural communities.		+	?	0	0	+	+	Low	0	The creation of additional multi-use routes will improve accessibility to non-vehicle travellers making shorter trips throughout the County. It is uncertain how the needs for longer trips i.e. from rural areas to the towns will be supported, although implementation of travel plans for new development should positively contribute to achieving this.	
A2: Reduce the community severance effects of infrastructure.		+	+	0	0	+	+	Low	0		
A3: Provide an inclusive transport network that meets the needs of society and specific groups such as the disabled and elderly.		+	?	0	0	+	?	Low	0		
A4: Improve sustainable access to the countryside		+	+	0	+	+	+	Medium	0		

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										Upgrading existing routes to multi-modal and implementing suggestions in the Cornwall Access Strategy would improve sustainable access to the countryside. Consideration of socio-economic effects, including effects of deprivation and access, through project level EIA of qualifying schemes.	Prioritising investment into sustainable travel infrastructure is likely to help supply sustainable access to the countryside.
E1: Invest in transport systems that will create a strong and sustainable economy by addressing economic barriers to growth, in particular access and congestion.		+	+	0	+	+	+	Medium	0	Potential for introduction of economic incentives for low carbon industry. Engage with local business and operators to establish 'buy-in' to pricing proposals and initiatives.	Encourage the development of alternative fuels infrastructure and support an emerging low carbon economy in the County could start introducing new industry which can create sustainability for the future. This would need to be implemented alongside any pricing disincentives applied to encourage uptake by business.

Summary

The effects of LTP Objective 1 are generally anticipated to be positive, with the policies contributing to, or strongly contributing to, the achievement of the SEA Objectives 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. Further detail is provided below.

Main Effects of the Plan Objectives and Policies

Sustainable travel initiatives are generally small scale works, which are not likely to have a significant effect on water quality. Land take is expected to be minimal. In the long term reducing a reliance on fossil fuels and the use of private motor vehicles will improve surface runoff and water quality resulting in an indirect positive effect on Objective WSM1. However, there remains a possibility of localised negative effects if construction is required.

These projects may reduce the number of private car journeys, so may reduce emissions and have a positive effect on soil quality; however the effect is not likely to be significant. The policies may help to reduce land take in the long term for road schemes, so should generally support Objective WSM2.

By implementing these policy initiatives to encourage more sustainable transport systems and infrastructure, in the long term there is likely to be a reduction in transport infrastructure construction. When more people are using sustainable modes and an integrated alternatives network has been created there will be less need for major new route development. This in turn will result in a reduction of mineral aggregates required for construction and will ease pressure on extraction. Similarly, reduced construction and focussing on improvements in travel planning and management is likely to positively contribute to reducing the amount of waste generation linked to transport, supporting WSM4.

Prioritising investment into sustainable travel infrastructure and developing a comprehensive smarter choices strategy incorporating travel plans will potentially limit the amount of private motor car travel. This will reduce the amount of green house gas emissions and reduce traffic flows benefiting in the long term biodiversity. In doing so this should contribute to supporting Objective BI1 and BI2.

Reducing a reliance on fossil fuels through more sustainable transport modes will improve air quality. A shift towards a low carbon economy and reducing emissions from private motor car and also light and heavy goods vehicles will certainly support Objective AQ1.

A shift towards low carbon transport and the resulting, more efficient (and often quieter) traffic flows will potentially reduce noise levels from motor vehicles.

The policies should provide direct support for Objective CC1, however there is a neutral relationship between the Policies and CC2.

There is likely to be a positive relationship between LTP Objective 1 and the SEA Objectives LTCH1, 2 and 3. The policies will not only reduce a reliance on fossil fuels but could potentially reduce noise nuisance levels and improve air quality. This will help in enhancing tranquillity, distinctiveness and sense of place by improving the built and natural landscape. A reduction in motorised traffic flows will also contribute positively to improve landscapes and enhance place distinctiveness.

There is a possibility that a shift away from private motor car to other modes will indirectly improve the KSI statistics (SEA Objective HSC1). However, an increase in uptake of other modes may result in a greater probability of collision. Encouraging travel by rail should reduce the opportunities for fatal accidents and reduce injuries.

The LTP policies under Objective 1 are not likely to have a significant effect Objective HSC2: Reduce levels of crime and fear of crime. However, they have the potential to support SEA Objective HSC3. Local initiatives to and any development or business travel plans should use this opportunity to encourage active travel to not only reduce greenhouse gas emissions, but also to improve physical health.

With regard to the Access objectives; the creation of additional multi-use routes will improve accessibility to non-vehicle travellers making shorter trips throughout the County. It is uncertain how the needs for longer trips i.e. from rural areas to the towns will be supported, although implementation of travel plans for new development should positively contribute to achieving this. Prioritising investment into sustainable travel infrastructure is likely to help supply sustainable access to the countryside.

Encourage the development of alternative fuels infrastructure and support an emerging low carbon economy in the County could start introducing new industry which can create sustainability for the future. This would need to be implemented alongside any pricing disincentives applied to encourage uptake by business.

Cumulative Effects of the Plan Objectives and Policies

- Potential for beneficial effects with regard to biodiversity through the indirect effects of improved air quality as a result of lower emissions and the improvement of surface water runoff due to less motor vehicle use.
- Potential biodiversity benefits from improved air quality and soil.
- Landscapes will potentially benefit from the protection of areas of good quality agricultural land.
- Reducing air pollution will increase the quality of landscapes and townscapes and their associated biodiversity.
- Potential improvement of soil acidity levels.
- A reduction in noise has the potential to beneficially affect personal wellbeing, both through reducing nuisance and improving tranquillity and setting of landscapes.
- Reducing traffic levels and therefore noise disturbance may also be of benefit to biodiversity.
- Biodiversity, water and soil will benefit from a reduction in emissions.
- A change in frequency or severity of collisions will potentially have a corresponding effect on the potential for soil or water contamination as a result.
- Biodiversity should benefit from reduced motor vehicle use.
- Reduction in noise levels and poor air quality near improved routes.

- Reduction in greenhouse gas emissions.
- Improved landscape tranquillity and setting through reduced traffic flows.

Potential Mitigation and Recommendations for the LTP

There are various suggestions and mitigation measures which could enhance the effectiveness of these policies.

- Policy for siting to include provision to safeguard good quality agricultural land (including avoiding severance).
- Promoting the on-site reuse of materials in construction and providing targets for developers to meet in the use of recycled materials would strengthen policy and further help to protect the environment, as would further advice on local construction and demolition recycling initiatives and where materials can be sourced for use in construction would also be beneficial. Ground site waste could also be implemented into landscape improvement schemes helping with screening or environment enhancement.
- Implementation of the mitigation hierarchy of avoidance, reduction and compensation for development construction will assist in application best practice and environmental protection. Actively promote opportunities for improving habitat connectivity and ecological coherence as part of development approval process.
- Air quality monitoring programmes and development targets focusing on improving air quality within existing AQMAs could help with addressing poor air quality. Travel plans and local initiatives to reduce poor air quality should seek to support reductions in existing AQMAs where appropriate. Air quality monitoring and targets should be included within the 3-year action plans.
- Exploring the use of noise management in management of existing infrastructure and the promotion of 'quieter' transport alternatives, including non- motorised travel should also be considered. Noise monitoring and targets for noise reduction within the 3 year action plans for vulnerable areas.
- Establishing long-term air quality/GHG objectives and opportunities in tandem with short-term action through a 3-year action plan including the development of an annual work programme and a system to monitor progress, will help to implement the above polices and help identify areas which need focusing on.
- Landscape and cultural heritage assessments on proposed developments should be integrated into the design process and mitigation plans implemented.
- Travel plans should seek to prioritise use of sustainable and low carbon transport over the private car. Travel plans should also be applied to developments proposed within any designated areas. There should also be strict monitoring with these areas. Travel plans and similar should focus on promoting sustainable modes and active travel encouraging a move away from using the private motor car. It would also be beneficial to consider measures for reducing traffic speeds and creation of traffic free routes where possible.
- The creation of additional multi-use routes will improve accessibility to non-vehicle travellers making shorter trips throughout the County. It is uncertain how the needs for longer trips i.e. from rural areas to the towns will be supported, although implementation of travel plans for new development should positively contribute to achieving this. Promotion of the rail network as a visitor travel mode should also assist in improving internal accessibility by reducing visitor vehicle traffic.
- Upgrading existing routes to multi-modal and implementing suggestions in the Cornwall Access Strategy would improve sustainable access to the countryside.
- Consideration of the potential for introduction of economic incentives for low carbon industry.
- Engage with local business and operators to establish 'buy-in' to pricing proposals and initiatives.
- Ensure coverage of key issues through project level EIA for qualifying schemes.

"Travel Plans will be required for all developments that are deemed likely to have an impact on the local transport network, including the following..." It is not clear whether this refers only to new developments or if may also be applied to existing developments – if it is possible to apply this retrospectively to existing developments, then further benefit in terms of the SEA Objectives may be derived.

Objective 2: Support communities to live locally

Policies as of 8/10/2010:

Encourage compact, mixed-use development at strategic locations to reduce the need to travel.

Review and update Cornwall Council's parking requirements for new developments that are consistent with sustainable transport objectives.

Focus rural development on villages, where community services such as schools, shops and libraries are conveniently situated.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects Identify other receptors with interrelated effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long				
WSM1: Minimise the impact of the transport network on the quality and quantity of the county's water resources.	<p>19 surface sources operated by South West Water. Total of 79,813 million litres. In the South West river basin district 23 per cent of waters meet good ecological status and 41 per cent do not meet good status (449 water bodies). The majority of water bodies that fail to meet good status fail because of the phosphorus, fish and diatom elements of classification. Surface runoff from transport routes could be affecting water quality.</p>	+	+	0	0	+	+	Low	0	<p>Monitoring of water quality for schemes.</p> <p>Active promotion of sustainable drainage and water supply for schemes. Identify measures to promote mitigation of additional water demand from development in Core Strategy.</p> <p>Consideration of water quality effects through project level EIA of qualifying schemes.</p>	<p>Focussing development in certain areas is likely to reduce the need to develop extensive lengths of new transport infrastructure, thereby reducing the risk of adverse effects on the quantity and quality of water resources. However, there is a possibility that, if not mitigated, this could increase pressure on water resources.</p>
WSM2: Reduce contamination and safeguard soil structure quality and quantity from transport systems and infrastructure.	<p>Shillet is most common soil type. Tend to be low in phosphates with impeded drainage, are difficult to manage in winter, but are highly productive if drained properly. 0.1% of agricultural land is Grade 1, 8% is Grade 2 and 61.2% is Grade 3a and 3b, the remainder is urban or poor. Contaminated land has largely arisen due to historical industrial activity, mainly mining.</p>	+	+	0	0	0	+	Medium	0	<p>Safeguard good quality agricultural land.</p> <p>Consideration of land take, land use, severance, soil quality and contamination effects through project level EIA of qualifying schemes.</p>	<p>Mixed-use development at strategic locations to reduce the need to travel will lead to a potential reduction in private car journeys, which will, in turn, reduce emissions which are a cause of soil acidification. This is only likely to be a local effect and seen in the long term.</p> <p>Concentration of development at specific locations will reduce the demand for land for new transport infrastructure. However, land take will be required for the developments themselves.</p>
WSM3: Minimise the impact of transport on mineral resources.	<p>Minerals currently exploited in the county are granite for aggregates and building stones, china clay, slate and sandstone. 2009 production of primary aggregates in Cornwall was around 1.43 million tonnes; this is principally from 12 quarries</p>	+	+	0	+	+	+	Medium	0	<p>Consideration of waste generation and disposal through EIA of qualifying schemes</p>	<p>Reviewing and updating Cornwall Council's parking requirements for new developments that are consistent with sustainable transport objectives will potentially result in a reduction of car parking facilities. Similarly, concentration of development at specific locations will reduce the demand for new transport infrastructure. This in turn will mean less construction and</p>

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		Local	County wide	Trans-boundary	Short	Medium	Long				
	throughout the County. China clay production contributes around £100 million to the UK balance of payments and makes a significant contribution to Cornwall's local economy each year. 2009 production of china clay was estimated to be in the region of 1.6 million tonnes.										the need for mineral resources for transport.
WSM4: Minimise the waste produced by transport systems and infrastructure.	Construction and demolition waste is the largest waste stream, 452,000 tonnes produced in 2008/09, 39% sent to landfill. Municipal waste arising 314,311. 63% sent to landfill. Need to reduce landfilling. Planning appeal logged for 240,000 tonne capacity energy from waste plant.	+	+	0	0	+	+	Low		Recycling initiatives Encouraging the use of recycled materials in construction aggregates. Consideration of waste generation and disposal through EIA of qualifying schemes	Concentration of development at specific locations will reduce the demand for new transport infrastructure. This in turn will mean less construction and less construction waste produced.
BI1: Conservation and enhancement of protected habitats and species and making a positive contribution to the local BAP.	41 BAP habitats found in Cornwall covering some 19652 ha overall. There are currently 496 County Wildlife Sites in Cornwall covering nearly 33,000 hectares or 10% of the county's land area. 166 Sites of Special Scientific Interest. 17 SACs, 3 Inshore Marine cSACs and 16 SPAs.	+/-	+/-	0	0	+/-	+/-	Low	0	Mitigation hierarchy of avoidance, reduction and compensation. Protection of designated sites.	New construction focusing around existing rural communities could have a negative effect on biodiversity. However, promoting development in areas with urban characteristics could help to safeguard biodiversity in the long term.
BI2: Improvement of ecological coherence, habitat connectivity and climate change resilience and adaption.		+/-	+/-	0	0	+/-	+/-	Low	0	Policy for development should aim to avoid adverse effects and identify opportunities for improving habitat connectivity and ecological coherence. Consideration of ecology and biodiversity effects through project level EIA of qualifying schemes.	

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	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects Identify other receptors with interrelated effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long				
AQ1: Reduce social, economic and environmental costs of transport on air quality.	2 AQMAs; Bodmin AQMA and Camborne, Pool and Redruth.AQMA. Pollutants of most concern are traffic-related fine airborne particulate matter and Nitrogen dioxide. A third AQMA is being considered for Tideford, again traffic related pollution. Air quality in the county is generally good .	+/-	+/-	0	0	+/-	+/-	High	An increase in noise and air pollution could have negative effects on place distinctiveness, sense of place and health.	Air quality monitoring programmes within compact developments Concentration on AQMA improvements. Policy must ensure that development does not make air pollution worse in current AQMAs. Seek to actively promote sustainable modes and encourage active travel. Design guides should promote sustainable transport modes where possible. Consideration of air quality effects through project level EIA of qualifying schemes.	Reducing the need to travel and focusing development in existing rural urban centres will help reduce the spread of poor air quality. Encouraging compact mix developments however, could create air quality problems if motorised transport use is not discouraged.
N1: Reduce the noise impact of the transport system.	Cornwall Quality of Life Survey indicated that 18.3% of respondents, in their opinion, thought vehicle noise was a 'very big' or 'fairly big' problem when considering contributors to neighbourhood and environmental problems. Over 40% felt it was 'not a very big problem' and fewer than 40% felt it was 'not a problem at all'.	+/-	+/-	0	0	+/-	+/-	Low	Noise monitoring. Introduction of noise reducing materials in any construction. Seek to actively promote sustainable modes and encourage active travel. Design guides should promote sustainable transport modes where possible. Consideration of noise effects through project level EIA of qualifying schemes.	Reducing the need to travel and focusing development in existing rural urban centres should limit the extent of noise pollution; however a move from motorised transport will also need to be promoted. ,.	
CC1: Mitigation: reduce the contribution of transportation to greenhouse gas	8.16 tonnes of CO ₂ were released per capita in Cornwall in 2006. Lowest per capita emissions	+	+	0	0	+	+	Low	0	Seek to actively promote sustainable modes and encourage active travel.	Reducing the need to travel, parking and focusing development in existing rural urban centres should locally help to reduce the amount of greenhouse gases emitted from

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	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long		Identify other receptors with interrelated effects		
emissions.	were found in the Isles of Scilly, with 5.73 tonnes. Road transport accounted for 29% of CO ₂ emissions in Cornwall for 2006. Two thirds of Cornish road transport carbon emissions are from private cars.									Design guides should promote sustainable transport modes where possible, including interchanges with mass transport nodes (such as rail or ferry) where possible. Consideration of air quality effects through project level EIA of qualifying schemes.	private motor vehicles. Cumulatively this should also help reduce the County's contribution to GHG emissions
CC2: Adaptation: minimise the vulnerability of the transport infrastructure to climate change.	DEFRA and the Environment Agency have identified which coastal sites and features are most at risk within the next 20 years of sea level change. Mullion Harbour and Godrevy feature in the high risk category and Boscastle Harbour falls into the medium risk category. Over the next 100 years around 15-30 km of additional roads in Cornwall are liable to become inundated by extreme tide levels. 3-5km of these are A roads, 2-4km are B roads, 5-9km C roads and 6-11km are unclassified roads.	0	0	0	0	0	0	Low	0	0	These policies are not likely to have a significant effect on this objective.
LTCH1: Create places, spaces and buildings that enhance local distinctiveness, appearance and sense of place.	12,490 Listed Buildings, 1,872 Scheduled Monuments, 145 Conservation Areas (4070 ha) 36 Registered Parks and Gardens (3720 ha), 2 Registered Battle Fields (115 ha), Cornish Mining World Heritage Site 18, 222 ha; 5.5% of Cornwall.	+/-	+/-	0	0	+/-	+/-	Low	Any construction required for development will require land take. This could have negative effects on biodiversity.	Landscape and cultural heritage assessments on proposed developments. Consideration of landscape and cultural heritage effects through project level EIA of qualifying schemes	A reduction in motorised traffic flows will improve landscapes and enhance place distinctiveness. However if development is focused intensely on existing centres then distinctiveness could be lost and the setting of sites or areas of historic interest could be affected.
LTCH2: Protect and enhance buildings, sites, structures and heritage assets that contribute to the quality		+/-	+/-	0	0	+/-	+/-	Low			

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	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects Identify other receptors with interrelated effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long				
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.		+/-	+/-	0	0	+/-	+/-	Low			
HSC1: Reduce the number of people killed and seriously injured in road collisions.	KSI total was 15% below the national baseline in 2006. Targets suggest a reduction of 30% by 2010/11 in KSI incidents.	++	+	0	0	+	+	Medium	0	Target user groups at greatest risk of being in a road traffic collision.	Reducing the need to travel will potentially reduce the exposure of the population to traffic hazards, therefore helping to reduce the number of people killed or seriously injured on the road.
HSC2: Reduce levels crime and fear of crime.	Generally centred on speeding offences, drink driving offences and mobile phone use. 2005 there were 11,964 speeding offences compared to 6,289 in 2008.	0	0	0	0	0	0	Low	0	Consider sensor activated or solar lighting for rural bus stops.	It is unlikely that these policies will generate a significant effect with regard to this objective. Reducing the need to travel may reduce opportunities for some vehicle related crime. However, creating compacted settlements could increase awareness of other crime.
HSC3: Encourage healthier lifestyles particularly by encouraging more people to walk and cycle.	The health of people in Cornwall is generally better than the England average. Both male and female life expectancies are higher than the England average. Over the last ten years early death rates from heart disease and stroke as well as early death rates from cancer have been declining and remain below the England average.	+	+	0	0	+	+	Medium	0	Seek to actively promote sustainable modes and encourage active travel. Design guides should promote sustainable transport modes where possible, including interchanges with mass transport nodes (such as rail or ferry) where possible.	Reducing travelling distances will make active travel options such as walking and cycling more feasible for residents.
A1: Improve accessibility of jobs, shops and other amenities for rural communities.		++	++	0	++	++	++	High		Consideration of socio-economic effects, including effects of deprivation and access, through project level EIA of qualifying schemes.	Supporting people to live locally by providing mix-use development greatly improve access to services and amenities
A2: Reduce the community severance effects of infrastructure.		++	++	0	++	++	++	High	Health and wellbeing benefits, especially for the disabled and elderly		Reducing the need to travel by improving access to services and amenities will reduce severance issues. Creating mixed use

Objective 2: Support communities to live locally											
Policies as of 8/10/2010: Encourage compact, mixed-use development at strategic locations to reduce the need to travel. Review and update Cornwall Council's parking requirements for new developments that are consistent with sustainable transport objectives. Focus rural development on villages, where community services such as schools, shops and libraries are conveniently situated.											
	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long		Identify other receptors with interrelated effects		
	A3: Provide an inclusive transport network that meets the needs of society and specific groups such as the disabled and elderly.	++	++	0	++	++	++	High			developments with housing, amenities and economic infrastructure will mean people with disabilities and the elderly will not have to travel as far.
	A4: Improve sustainable access to the countryside	0	0	0	0	0	0	Medium	0	0	These policies are not likely to have a significant effect on this objective.
	E1: Invest in transport systems that will create a strong and sustainable economy by addressing economic barriers to growth, in particular access and congestion.	+	+	0	0	+	+	High	Improving economic growth through the above policies is likely to improve personal wellbeing with more people having access to work and perhaps earning more money.	0	Improving access to local communities will encourage economic growth in those areas and providing mixed developments will help spread economic activity throughout the County.

Summary

Main Effects of the Plan Objectives and Policies

LTP Objective 2 and its policies 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. Further detail on these effects are provided below.

Focussing development in certain areas is likely to reduce the need to develop extensive lengths of new transport infrastructure, thereby reducing the risk of adverse effects on the quantity and quality of water resources. However, there is a possibility that, if not mitigated, this could increase pressure on water resources.

Mixed-use development at strategic locations to reduce the need to travel will lead to a potential reduction in private car journeys, which will in turn reduce emissions which are a cause of soil acidification. This is only likely to be a local effect and seen in the long term. Concentration of development at specific locations will reduce the demand for land for new transport infrastructure. However, land take will be required for the developments themselves.

Reviewing and updating Cornwall Council's parking requirements for new developments that are consistent with sustainable transport objectives will potentially result in a reduction of car parking facilities. Similarly, concentration of development at specific locations will reduce the demand for new transport infrastructure, which should reduce the demand for construction and the need for mineral resources for transport. Whilst concentration of development at specific locations will reduce the demand for new transport infrastructure, this in turn will mean less construction and a corresponding reduction in the amount of construction waste produced. The parking review may lead to reductions and minor temporary increases in C&D waste if car parking is removed.

New construction focusing around existing rural communities could have a negative effect on biodiversity. However, promoting development in areas with urban characteristics could help to safeguard biodiversity in the long term.

Reducing the need to travel and focusing development in existing rural urban centres will help reduce the spread of poor air quality. Encouraging compact mix developments however, could create air quality problems if motorised transport use is not discouraged.

Reducing the need to travel and focusing development in existing rural urban centres should limit the extent of noise pollution; however a move from motorised transport will also need to be promoted.

Reducing the need to travel, parking and focusing development in existing rural urban centres should locally help to reduce the amount of greenhouse gases emitted from private motor vehicles. Cumulatively this should also help reduce the County's contribution to GHG emissions

A reduction in motorised traffic flows will improve landscapes and enhance place distinctiveness. However if development is focused intensely on existing centres then distinctiveness could be lost and the setting of sites or areas of historic interest could be affected.

Reducing the need to travel is expected to support Objective HSC1 by reducing the exposure of the population to traffic hazards, therefore helping to reduce the number of people killed or seriously injured on the road. It is unlikely that these policies will generate a significant effect with regard to Objective HSC2. Reducing the need to travel may reduce opportunities for some vehicle related crime. However, creating compacted settlements could increase awareness of other crime. It is likely that reducing travelling distances will make active travel options such as walking and cycling more feasible for residents, thereby positively contributing to the achievement of Objective HSC3.

Supporting people to live locally by providing mix-use development greatly improve access to services and amenities. Reducing the need to travel by improving access to services and amenities will reduce severance issues. Creating mixed use developments with housing, amenities and economic infrastructure will mean people with disabilities and the elderly will not have to travel as far. In this way the Objective 2 policies are likely to support the achievement of SEA Objectives A1, A2 and A3. However these policies are not likely to have a significant effect on achieving Objective A4.

Improving access to local communities will encourage economic growth in those areas and providing mixed developments will help spread economic activity throughout the County.

Cumulative Effects of the Plan Objectives and Policies

An increase in noise and air pollution could have negative effects on place distinctiveness, sense of place and health.

Any construction required for development will require land take. This could negative effects on biodiversity.

Health and wellbeing benefits through improving the mix of services in each area, especially for the vulnerable groups.

Improving economic growth through the above policies is likely to improve personal wellbeing with more people having access to work and perhaps earning more money.

Potential Mitigation and Recommendations for the LTP

There are various suggestions and mitigation measures which could enhance the effectiveness of these policies.

- Monitoring of water quality for schemes. Active promotion of sustainable drainage and water supply for schemes. Identify measures to promote mitigation of additional water demand from development in Core Strategy.
- Safeguard good quality agricultural land.
- Recycling initiatives. Encouraging the use of recycled materials in construction aggregates.
- Policy for development should aim to avoid adverse effects and identify opportunities for improving habitat connectivity and ecological coherence. Promote application of mitigation hierarchy of avoidance, reduction and compensation.
- Air quality monitoring programmes within compact developments; particularly to link in with AQMA policy and to avoid creation of new problem areas. Policy must ensure that development does not make air pollution worse in current AQMAs. Seeking to actively promote sustainable modes and encourage active travel may also help contribute to this.
- Policy to promote noise monitoring and introduction of noise reducing materials in any construction.
- Seek to actively promote sustainable modes and encourage active travel. Design guides should promote sustainable transport modes where possible, including interchanges with mass transport nodes (such as rail or ferry) where possible.
- Landscape and cultural heritage assessments on proposed developments
- Ensure coverage of key issues through project level EIA for qualifying schemes
- Consider whether there are any specific elements relating to the environment that could be worked into rural roads protocol.
- Consideration of environmental effects through project level EIA of qualifying schemes.
- Ensure LTP proposals do not create new areas of exceedence.
- Target user groups at greatest risk of being in a road traffic collision.
- Consider sensor activated or solar lighting for rural bus stops.

Possibly consider use of a different adjective to “compact” when describing development – may have connotations with crowding, or could result in over-condensed development with ensuing noise/air quality/well being issues. Alternatively, introduce a requirement for good design, or “well-designed compact” development.

Objective 3: Adaptation and improving the transport network to ensure resilience to climate change

Policies as of 8/10/2010:

Where necessary combine a drainage and surface treatment solution alongside routine highway maintenance in order to minimise the potential impacts of climate change.

Introducing variable street lighting that allows the level of lighting to be adjusted or turned off to suit the needs of the community, thereby reducing power consumption and carbon emissions.

Ensure that our transport system is built to last and can withstand the impacts of extreme weather events and rising energy prices, through effective design, construction and maintenance.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long		Identify other receptors with interrelated effects		
WSM1: Minimise the impact of the transport network on the quality and quantity of the county's water resources.	19 surface sources operated by South West Water. Total of 79,813 million litres. In the South West river basin district 23 per cent of waters meet good ecological status and 41 per cent do not meet good status (449 water bodies). The majority of water bodies that fail to meet good status fail because of the phosphorus, fish and diatom elements of classification. Surface runoff from transport routes could be affecting water quality.	+/-	+/-	0	+/-	+/-	+/-	Medium	Any contaminated run off could have negative effects on the natural environment.	Efficient management of vulnerable water bodies. Strict monitoring of water quality. Promote sustainable drainage incorporating pollution control/attenuation functions. Consideration of water quality effects through project level EIA of qualifying schemes	Incorporating drainage and surface treatment solutions alongside routine highway maintenance could potential direct contaminated surface run off into good quality water resources. However, the drainage solutions could be use to direct runoff away from valuable water bodies.
WSM2: Reduce contamination and safeguard soil structure quality and quantity from transport systems and infrastructure.	Shillet is most common soil type. Tend to be low in phosphates with impeded drainage, are difficult to manage in winter, but are highly productive if drained properly. 0.1% of agricultural land is Grade 1, 8% is Grade 2 and 61.2% is Grade 3a and 3b, the remainder is urban or poor. Contaminated land has largely arisen due to historical industrial activity, mainly mining.	-	-	0	0	-	-	Low	Loss of large amounts of agricultural land could adversely effect the resilience f crop production in the County.	Safeguard good quality agricultural land. Consideration of land/soil quality and land use effects through project level EIA of qualifying schemes	Incorporating drainage and surface treatment solutions alongside routine highway maintenance may result in a slight increase in land take for new transport infrastructure.
WSM3: Minimise the impact of transport on mineral resources.	Minerals currently exploited in the county are granite for aggregates and building stones, china clay, slate and sandstone. 2009 production of primary aggregates in Cornwall was around 1.43 million tonnes; this is principally from 12 quarries	+/-	+/-	0	-	-	+	Medium	Any construction required to protect the transport infrastructure from climate change will require minerals for aggregates.	Protection of designated sites of mineral resource. Encouraging the use of recycled materials in construction aggregates. Consideration of waste generation and disposal though EIA of qualifying	In the short term more mineral resources could be required to make the transport system more resilient. However, if the system is built to last there could be a long term reduction in the use of mineral resources for transport infrastructure projects.

Objective 3: Adaptation and improving the transport network to ensure resilience to climate change

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Where necessary combine a drainage and surface treatment solution alongside routine highway maintenance in order to minimise the potential impacts of climate change.

Introducing variable street lighting that allows the level of lighting to be adjusted or turned off to suit the needs of the community, thereby reducing power consumption and carbon emissions.

Ensure that our transport system is built to last and can withstand the impacts of extreme weather events and rising energy prices, through effective design, construction and maintenance.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects Identify other receptors with interrelated effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long				
	throughout the County. China clay production contributes around £100 million to the UK balance of payments and makes a significant contribution to Cornwall's local economy each year. 2009 production of china clay was estimated to be in the region of 1.6 million tonnes.									schemes.	
WSM4: Minimise the waste produced by transport systems and infrastructure.	Construction and demolition waste is the largest waste stream, 452,000 tonnes produced in 2008/09, 39% sent to landfill. Municipal waste arising 314,311. 63% sent to landfill. Need to reduce landfilling. Planning appeal logged for 240,000 tonne capacity energy from waste plant.	+/-	+/-	0	-	-	+	Medium	Any construction required for improved access will have negative effects on biodiversity.	Recycling initiatives Encouraging the use of recycled materials in construction aggregates. Consideration of waste generation and disposal through EIA of qualifying schemes.	Possibility for an increase in construction waste from infrastructure projects in the short term. Once the system has been made resilient and long lasting then waste levels could be reduced.
BI1: Conservation and enhancement of protected habitats and species and making a positive contribution to the local BAP.	41 BAP habitats found in Cornwall covering some 19652 ha overall. There are currently 496 County Wildlife Sites in Cornwall covering nearly 33,000 hectares or 10% of the county's land area. 166 Sites of Special Scientific Interest. 17 SACs, 3 Inshore Marine cSACs and 16 SPAs.	+/-	+/-	0	-	-	+	Low		Mitigation hierarchy of avoidance, reduction and compensation. Protection of designated sites.	Any construction work required will have a negative effect on biodiversity. However, once the transport system has been built to last there could be long term benefits through the need for less construction in the future.
BI2: Improvement of ecological coherence, habitat connectivity and climate change resilience and adaption.		+/-	+/-	0	0	+/-	+/-	Low	0	Consideration of ecology and biodiversity effects through project level EIA of qualifying schemes. Identify opportunities for improving habitat connectivity and ecological coherence as part of development approval process. Ensure lighting design and implementation takes full account of the	Habitat connectivity will need to be considered through the 'effective design' strategy. Deployment of street lighting etc. may interrupt nocturnal species and foraging routes; e.g. bat foraging corridors

Objective 3: Adaptation and improving the transport network to ensure resilience to climate change

Policies as of 8/10/2010:

Where necessary combine a drainage and surface treatment solution alongside routine highway maintenance in order to minimise the potential impacts of climate change.

Introducing variable street lighting that allows the level of lighting to be adjusted or turned off to suit the needs of the community, thereby reducing power consumption and carbon emissions.

Ensure that our transport system is built to last and can withstand the impacts of extreme weather events and rising energy prices, through effective design, construction and maintenance.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects Identify other receptors with interrelated effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long				
										implications and effects on ecology. Consider sensor activated lighting for rural bus stops. Procure/specify low-UV lighting types with high directionality (e.g. LED) to reduce effect on foraging wildlife.	
AQ1: Reduce social, economic and environmental costs of transport on air quality.	2 AQMAs; Bodmin AQMA and Camborne, Pool and Redruth.AQMA. Pollutants of most concern are traffic-related fine airborne particulate matter and Nitrogen dioxide. A third AQMA is being considered for Tideford, again traffic related pollution. Air quality in the county is generally good.	0	+	+	0	+	+	Medium	0	Consideration of air quality effects through project level EIA of qualifying schemes. Ensure LTP proposals do not create new areas of exceedence.	Reducing CO ₂ emissions through reducing power consumption and carbon emissions will benefit air quality as a whole. Effects at a local level are unlikely to be apparent.
N1: Reduce the noise impact of the transport system.	Cornwall Quality of Life Survey indicated that 18.3% of respondents, in their opinion, thought vehicle noise was a 'very big' or 'fairly big' problem when considering contributors to neighbourhood and environmental problems. Over 40% felt it was 'not a very big problem' and fewer than 40% felt it was 'not a problem at all'.	0	0	0	0	0	0	Medium	0	0	These policies are not likely to have a significant effect on this objective.
CC1: Mitigation: reduce the contribution of transportation to greenhouse gas emissions.	8.16 tonnes of CO ₂ were released per capita in Cornwall in 2006. Lowest per capita emissions were found in the Isles of Scilly, with 5.73 tonnes. Road transport accounted for	0	+	+	0	+	+	Medium	0	Consideration of air quality effects through project level EIA of qualifying schemes.	Reducing power consumption through more efficient street lighting will help reduce carbon emissions County wide, but effects are unlikely to be recognised at a local level.

Objective 3: Adaptation and improving the transport network to ensure resilience to climate change

Policies as of 8/10/2010:

Where necessary combine a drainage and surface treatment solution alongside routine highway maintenance in order to minimise the potential impacts of climate change.

Introducing variable street lighting that allows the level of lighting to be adjusted or turned off to suit the needs of the community, thereby reducing power consumption and carbon emissions.

Ensure that our transport system is built to last and can withstand the impacts of extreme weather events and rising energy prices, through effective design, construction and maintenance.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects Identify other receptors with interrelated effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long				
	29% of CO ₂ emissions in Cornwall for 2006. Two thirds of Cornish road transport carbon emissions are from private cars.										
CC2: Adaptation: minimise the vulnerability of the transport infrastructure to climate change.	DEFRA and the Environment Agency have identified which coastal sites and features are most at risk within the next 20 years of sea level change. Mullion Harbour and Godrevy feature in the high risk category and Boscastle Harbour falls into the medium risk category. Over the next 100 years around 15-30 km of additional roads in Cornwall are liable to become inundated by extreme tide levels. 3-5km of these are A roads, 2-4km are B roads, 5-9km C roads and 6-11km are unclassified roads.	++	++	0	++	++	++	Medium	By creating a more resilient transport system will help protect economic activity and goods supply chains.	0	Ensuring that the transport system is built to last and can withstand the impacts of extreme weather events and rising energy prices, through effective design, construction and maintenance, positively supports this objective. The introduction of new drainage features and technologies will also increase resilience against flooding from rising sea levels and more intense rainfall events.
LTCH1: Create places, spaces and buildings that enhance local distinctiveness, appearance and sense of place.	12,490 Listed Buildings, 1,872 Scheduled Monuments, 145 Conservation Areas (4070 ha) 36 Registered Parks and Gardens (3720 ha), 2 Registered Battle Fields (115 ha), Cornish Mining World Heritage Site 18, 222 ha; 5.5% of Cornwall.	+	+	0	+	+	+	Medium	0	Consideration of landscape and cultural heritage effects through project level EIA of qualifying schemes.	Introducing variable lighting to meet the needs of specific communities will help reduce levels of glow from street lighting. Returning communities, especially rural areas to a more natural degree of lighting can enhance character and help protect place distinctiveness, and increase tranquillity in the setting
LTCH2: Protect and enhance buildings, sites, structures and heritage assets that contribute to the quality of countryside, townscape and the public realm.		+	+	0	+	+	+	Medium	0		
LTCH3: Protect and enhance landscape character and local distinctiveness including Areas of Outstanding Natural Beauty and the World Heritage Site.		+	+	0	+	+	+	Medium	0		

Objective 3: Adaptation and improving the transport network to ensure resilience to climate change

Policies as of 8/10/2010:

Where necessary combine a drainage and surface treatment solution alongside routine highway maintenance in order to minimise the potential impacts of climate change.

Introducing variable street lighting that allows the level of lighting to be adjusted or turned off to suit the needs of the community, thereby reducing power consumption and carbon emissions.

Ensure that our transport system is built to last and can withstand the impacts of extreme weather events and rising energy prices, through effective design, construction and maintenance.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects Identify other receptors with interrelated effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long				
HSC1: Reduce the number of people killed and seriously injured in road collisions.	KSI total was 15% below the national baseline in 2006. Targets suggest a reduction of 30% by 2010/11 in KSI incidents.	0	0	0	0	0	0	Medium	0		These policies are not likely to have a significant effect on this objective.
HSC2: Reduce levels crime and fear of crime.	Generally centred on speeding offences, drink driving offences and mobile phone use. 2005 there were 11,964 speeding offences compared to 6,289 in 2008.	-	-	0	-	-	-	Medium	0	Ensure that lighting levels are sufficient in urban or vulnerable areas which have been identified through community engagement. Consider sensor activated or solar lighting for rural bus stops.	Reducing levels of street lighting may increase fear of crime in some parts of the community.
HSC3: Encourage healthier lifestyles particularly by encouraging more people to walk and cycle.	The health of people in Cornwall is generally better than the England average. Both male and female life expectancies are higher than the England average. Over the last ten years early death rates from heart disease and stroke as well as early death rates from cancer have been declining and remain below the England average.	0	0	0	0	0	0	Medium	0		These policies are not likely to have a significant effect on this objective.
A1: Improve accessibility of jobs, shops and other amenities for rural communities.		0	0	0	0	0	0	Medium	Having an effective and resilient transport system which can withstand the effects of climate change may in the long term contribute indirectly to maintaining access for remote communities		These policies are not likely to have a significant effect on this objective.
A2: Reduce the community severance effects of infrastructure.		0	0	0	0	0	0	Medium			
A3: Provide an inclusive transport network that meets the needs of society and specific groups such as the		0	0	0	0	0	0	Medium			These policies are not likely to have a significant effect on this objective.

Objective 3: Adaptation and improving the transport network to ensure resilience to climate change											
Policies as of 8/10/2010: Where necessary combine a drainage and surface treatment solution alongside routine highway maintenance in order to minimise the potential impacts of climate change. Introducing variable street lighting that allows the level of lighting to be adjusted or turned off to suit the needs of the community, thereby reducing power consumption and carbon emissions. Ensure that our transport system is built to last and can withstand the impacts of extreme weather events and rising energy prices, through effective design, construction and maintenance.											
	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long		Identify other receptors with interrelated effects		
	disabled and elderly.										
	A4: Improve sustainable access to the countryside	0	0	0	0	0	0	Medium			These policies are not likely to have a significant effect on this objective.
	E1: Invest in transport systems that will create a strong and sustainable economy by addressing economic barriers to growth, in particular access and congestion.	+	++	+	0	++	++	Medium	Having a strong economy with low employment levels can help improve health and sense of wellbeing.	Consideration of socio-economic effects, including effects of deprivation and access, through project level EIA of qualifying schemes.	Having an effective and resilient transport system which can withstand the effects of climate change will help to keep the economy moving and help long term expansion.

Summary

LTP Objective 3 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. Further detail is provided below.

Main Effects of the Plan Objectives and Polices

Incorporating drainage and surface treatment solutions alongside routine highway maintenance could potential direct contaminated surface run off into good quality water resources. However, the drainage solutions could be use to direct runoff away from valuable water bodies. Incorporating drainage and surface treatment solutions alongside routine highway maintenance may result in a slight increase in land take for new transport infrastructure.

In the short term more mineral resources could be required to make the transport system more resilient. However, if the system is built to last there could be a long term reduction in the use of mineral resources for transport infrastructure projects. There is also a possibility for an increase in construction waste from infrastructure projects in the short term. Again, once the system has been made resilient and long lasting then waste levels could be reduced.

Any construction work required will have a negative effect on biodiversity. However, once the transport system has been built to last there could be long term benefits through the need for less construction in the future.

Reducing CO₂ emissions through reducing power consumption and carbon emissions will benefit air quality as a whole, although effects at a local level are unlikely to be apparent. Reducing power consumption through more efficient street lighting will help reduce carbon emissions County wide, and possibly beyond, depending on where the power is generated. Again, the effects are unlikely to be recognised at a local level. Introducing variable lighting to meet the needs of specific communities will help reduce levels of glow from street lighting. Returning communities, especially rural areas to a more natural degree of lighting can enhance character and help protect place distinctiveness, and increase tranquillity in the setting. Reducing levels of street lighting may increase fear of crime in some parts of the community.

Ensuring that the transport system is built to last and can withstand the impacts of extreme weather events and rising energy prices, through effective design, construction and maintenance, positively supports this objective. The introduction of new drainage features and technologies will also increase resilience against flooding from rising sea levels and more intense rainfall events.

Having an effective and resilient transport system which can withstand the effects of climate change will help to keep the economy moving and help long term expansion.

Cumulative Effects of the Plan Objectives and Policies

Any contaminated run off could have negative effects on the natural environment.

Loss of large amounts of agricultural land could adversely effect the resilience f crop production in the County.

Any construction required to protect the transport infrastructure from climate change will require minerals for aggregates.

Any construction required for improved access will have negative effects on biodiversity.

Having an effective and resilient transport system which can withstand the effects of climate change may in the long term contribute indirectly to maintaining access for remote communities.

By creating a more resilient transport system will help protect economic activity and goods supply chains.

Having a strong economy with low employment levels can help improve health and sense of wellbeing.

Potential Mitigation and Recommendations for the LTP

There are various suggestions and mitigation measures which could enhance the effectiveness of these policies.

- Efficient management of vulnerable water bodies and monitoring of water quality. Promote sustainable drainage incorporating pollution control/attenuation functions.
- Safeguard good quality agricultural land in siting of schemes.
- Protection of designated sites of mineral resource. Promote and encourage the use of recycled materials in construction aggregates.
- Promote protection of designated landscape and biodiversity sites, including protection of wildlife/landscape corridors. Identify opportunities for improving habitat connectivity and ecological coherence
- Ensure that lighting levels are sufficient in urban or vulnerable areas.
- Consider whether there are any specific elements relating to the environment that could be worked into rural roads protocol.
- Consideration of environmental effects through project level EIA of qualifying schemes.
- Ensure LTP proposals do not create new areas of exceedence.
- Target user groups at greatest risk of being in a road traffic collision.
- Consider sensor activated lighting for rural bus stops – this will have potential benefits in terms of landscape, climate change mitigation/adaptation and biodiversity. Procurement or specification of low-UV lighting types with high directionality (e.g. LED) where lighting is required will reduce the effect on foraging wildlife and the tranquillity of the landscape.

LTP Goal: Supporting Economic Prosperity

Objective 4: Improve connectivity											
Policies as of 8/10/2010: Improve connectivity for businesses in Cornwall. Support and promote the services provided by Devon County Council, Plymouth City Council with other Local Authorities connecting Cornwall with the surrounding areas. Work with Plymouth City Council and the Highways Agency to protect and enhance the bridge and ferry crossings of the Tamar. Improve and expanding Cornwall's railway with our partners, to provide a reliable core network and more frequent services, linking the main Cornish towns to each other and the rest of Country. Work with partners to increase the amount of freight moved by rail and water to and from Cornwall. Consideration will be given to reclassifying individual roads in view of future changes to land use patterns and transportation systems. Consider the needs of HGV in road construction and rehabilitation on routes highlighted by the Freight Network Map. Require landowners to dedicate land to Cornwall Council for road widening as a condition of site planning approval if applicable. Provide improved sustainable ground transport connections to Newquay Cornwall airport.											
	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long		Identify other receptors with interrelated effects		
WSM1: Minimise the impact of the transport network on the quality and quantity of the county's water resources.	19 surface sources operated by South West Water. Total of 79,813 million litres. In the South West river basin district 23 per cent of waters meet good ecological status and 41 per cent do not meet good status (449 water bodies). The majority of water bodies that fail to meet good status fail because of the phosphorus, fish and diatom elements of classification. Surface runoff from transport routes could be effecting water quality.	-	-	0	-	-	-	Medium	Any contamination to water bodies will have negative effects to local ecosystems.	Water quality monitoring during construction and operation of any major transport developments. Incorporate sustainable drainage systems. Use best practice techniques and design guides. Consideration of water quality effects through project level EIA of qualifying schemes	Improving connectivity through ICT infrastructure and expanding Cornwall's railway network is likely to require construction. This could lead to contamination of existing water bodies. Requiring landowners to dedicate more land for road widening could create more surface runoff and drainage problems. Increasing freight movements by water could also increase the risk of contamination.
WSM2: Reduce contamination and safeguard soil structure quality and quantity from transport systems and infrastructure.	Shillet is most common soil type. Tend to be low in phosphates with impeded drainage, are difficult to manage in winter, but are highly productive if drained properly. 0.1% of agricultural land is Grade 1, 8% is Grade 2 and 61.2% is Grade 3a and 3b, the remainder is urban or poor. Contaminated land has largely arisen due to historical industrial activity, mainly mining.	--	--	0	--	--	--	Medium	Soil contamination and land take will have negative effects on biodiversity.	Safeguarding of good quality agricultural land. Use best practice techniques and design guides. Promoting businesses to allow home or remote working to avoid the need to travel. Consideration of land take, land use, severance, soil quality and contamination effects through project level EIA of qualifying	Land-take for road widening and HGV compatibility, especially from farmers could have an adverse effect on agricultural land.

Objective 4: Improve connectivity

Policies as of 8/10/2010:

Improve connectivity for businesses in Cornwall.

Support and promote the services provided by Devon County Council, Plymouth City Council with other Local Authorities connecting Cornwall with the surrounding areas.

Work with Plymouth City Council and the Highways Agency to protect and enhance the bridge and ferry crossings of the Tamar.

Improve and expanding Cornwall's railway with our partners, to provide a reliable core network and more frequent services, linking the main Cornish towns to each other and the rest of Country.

Work with partners to increase the amount of freight moved by rail and water to and from Cornwall.

Consideration will be given to reclassifying individual roads in view of future changes to land use patterns and transportation systems.

Consider the needs of HGV in road construction and rehabilitation on routes highlighted by the Freight Network Map.

Require landowners to dedicate land to Cornwall Council for road widening as a condition of site planning approval if applicable.

Provide improved sustainable ground transport connections to Newquay Cornwall airport.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects	Potential mitigation	Commentary
				0					schemes.		
WSM3: Minimise the impact of transport on mineral resources.	Minerals currently exploited in the county are granite for aggregates and building stones, china clay, slate and sandstone. 2009 production of primary aggregates in Cornwall was around 1.43 million tonnes; this is principally from 12 quarries throughout the County. China clay production contributes around £100 million to the UK balance of payments and makes a significant contribution to Cornwall's local economy each year. 2009 production of china clay was estimated to be in the region of 1.6 million tonnes.	--	--	0	--	--	--	Medium	More mineral extraction will be required effect visual landscapes and biodiversity.	Encourage and set targets for the use of recycled materials for infrastructure construction. Consideration of waste generation and disposal though EIA of qualifying schemes.	The construction needed to achieve the above polices will increase demand for minerals in aggregates and increase extraction volume.
WSM4: Minimise the waste produced by transport systems and infrastructure.	Construction and demolition waste is the largest waste stream, 452,000 tonnes produced in 2008/09, 39% sent to landfill. Municipal waste arising 314,311. 63% sent to landfill. Need to reduce landfilling. Planning appeal logged for 240,000 tonne capacity energy from waste plant.	--	--	0	--	--	--	Medium	An increase in construction and demolition waste being sent to landfill will have negative environmental effects.	Encourage the reuse on site of construction and demolition waste. Encourage and set targets for the use of recycled materials in infrastructure construction. Consideration of waste generation and disposal though EIA of qualifying schemes.	The construction needed to achieve the above polices will potentially increase construction waste from both rail and road improvements.
BI1: Conservation and enhancement of protected habitats and species and making a positive contribution to	41 BAP habitats found in Cornwall covering some 19652 ha overall. There are currently 496 County Wildlife Sites in	--	--	0	--	--	--	Medium		Avoid protected sites and incorporate ecological assessments into project design process. Use best practice techniques and	The construction needed to achieve the above polices will require land take across the County. This has the potential to have negative impacts on a diverse range of habitats and species. Traffic flows are likely to

Objective 4: Improve connectivity

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Work with partners to increase the amount of freight moved by rail and water to and from Cornwall.

Consideration will be given to reclassifying individual roads in view of future changes to land use patterns and transportation systems.

Consider the needs of HGV in road construction and rehabilitation on routes highlighted by the Freight Network Map.

Require landowners to dedicate land to Cornwall Council for road widening as a condition of site planning approval if applicable.

Provide improved sustainable ground transport connections to Newquay Cornwall airport.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects	Potential mitigation	Commentary
the local BAP.											
BI2: Improvement of ecological coherence, habitat connectivity and climate change resilience and adaption.	Cornwall covering nearly 33,000 hectares or 10% of the county's land area. 166 Sites of Special Scientific Interest. 17 SACs, 3 Inshore Marine cSACs and 16 SPAs.	--	--	0	--	--	--	Medium		design guides. Consideration of ecology and biodiversity effects through project level EIA of qualifying schemes	increase and natural landscapes will change. Green corridors and densely vegetated road verges could be lost through widening.
AQ1: Reduce social, economic and environmental costs of transport on air quality.	2 AQMAs; Bodmin AQMA and Camborne, Pool and Redruth.AQMA. Pollutants of most concern are traffic-related fine airborne particulate matter and Nitrogen dioxide. A third AQMA is being considered for Tideford, again traffic related pollution. Air quality in the county is generally good.	+/-	+/-	0	+/-	+/-	+/-	Medium	Biodiversity will suffer through an increase in poor air quality levels. So could soil quality through acidification. Place distinctiveness and townscapes could also experience negative effects.	Air quality monitoring programmes. Concentration on AQMA improvements. Consideration of air quality effects through project level EIA of qualifying schemes. Ensure LTP proposals do not create new areas of exceedence.	The connectivity improvements encouraging vehicle travel will have negative effects on air quality, as will encouraging HGV traffic. Improving the County's rail network could reduce traffic flows but will increase air pollution from trains.
N1: Reduce the noise impact of the transport system.	Cornwall Quality of Life Survey indicated that 18.3% of respondents, in their opinion, thought vehicle noise was a 'very big' or 'fairly big' problem when considering contributors to neighbourhood and environmental problems. Over 40% felt it was 'not a very big problem' and fewer than 40% felt it was 'not a problem at all'.	-	-	0	-	-	-	Medium	Noise increases can have negative effects on biodiversity and personal health and wellbeing due to an increase in nuisance levels.	Noise monitoring. Use of noise reducing materials for road schemes. Consideration of noise effects through project level EIA of qualifying schemes.	Improving roads for HGV travel could increase flows and expanding the rail network will increase noise nuisance for private residences. The potential reduction in congestion and traffic flows from improved rail links and improved connectivity is unlikely to out way the negatives.
CC1: Mitigation: reduce the contribution of transportation to greenhouse gas emissions.	8.16 tonnes of CO ₂ were released per capita in Cornwall in 2006. Lowest per capita emissions were found in the Isles of Scilly, with 5.73 tonnes. Road transport accounted for 29% of CO ₂ emissions in	-	-	0	-	-	-	Medium	Biodiversity will suffer through an increase in poor air quality levels. So could soil quality through acidification. Place distinctiveness and townscapes could also experience negative effects	Air quality monitoring programmes. Concentration on AQMA improvements. Consideration of air quality effects through project level EIA of	The connectivity improvements encouraging vehicle travel will have negative effects on air quality, as will encouraging HGV traffic. Improving the County's rail network could reduce traffic flows but will increase air pollution from trains.

Objective 4: Improve connectivity

Policies as of 8/10/2010:

Improve connectivity for businesses in Cornwall.

Support and promote the services provided by Devon County Council, Plymouth City Council with other Local Authorities connecting Cornwall with the surrounding areas.

Work with Plymouth City Council and the Highways Agency to protect and enhance the bridge and ferry crossings of the Tamar.

Improve and expanding Cornwall's railway with our partners, to provide a reliable core network and more frequent services, linking the main Cornish towns to each other and the rest of Country.

Work with partners to increase the amount of freight moved by rail and water to and from Cornwall.

Consideration will be given to reclassifying individual roads in view of future changes to land use patterns and transportation systems.

Consider the needs of HGV in road construction and rehabilitation on routes highlighted by the Freight Network Map.

Require landowners to dedicate land to Cornwall Council for road widening as a condition of site planning approval if applicable.

Provide improved sustainable ground transport connections to Newquay Cornwall airport.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects	Potential mitigation	Commentary
	Cornwall for 2006. Two thirds of Cornish road transport carbon emissions are from private cars.									qualifying schemes.	
CC2: Adaptation: minimise the vulnerability of the transport infrastructure to climate change.	DEFRA and the Environment Agency have identified which coastal sites and features are most at risk within the next 20 years of sea level change. Mullion Harbour and Godrevy feature in the high risk category and Boscastle Harbour falls into the medium risk category. Over the next 100 years around 15-30 km of additional roads in Cornwall are liable to become inundated by extreme tide levels. 3-5km of these are A roads, 2-4km are B roads, 5-9km C roads and 6-11km are unclassified roads.	0	0	0	0	0	0	Medium			These policies are not likely to have a significant effect on this objective.
LTCH1: Create places, spaces and buildings that enhance local distinctiveness, appearance and sense of place.	12,490 Listed Buildings, 1,872 Scheduled Monuments, 145 Conservation Areas (4070 ha)	-	-	0	-	-	-	Medium	Expanding the rail network has the potential to need development in remote rural areas between major settlements. This could negatively change landscapes,	Designated sites should be avoided and landscape enhancement should be incorporated into development projects. Use best practice techniques and design guides.	Expanding the rail network has the potential to need development in remote rural areas between major settlements. This could negatively change landscapes and impact designated AONB. Road widening and land take could have negative effects on distinctiveness and also have negative effects on designated buildings.
LTCH2: Protect and enhance buildings, sites, structures and heritage assets that contribute to the quality of countryside, townscape and the public realm.	36 Registered Parks and Gardens (3720 ha), 2 Registered Battle Fields (115 ha), Cornish Mining World Heritage Site 18, 222 ha; 5.5% of Cornwall.	-	-	0	-	-	-	Medium			
LTCH3: Protect and enhance landscape character and local distinctiveness including		-	-	0	-	-	-	Medium			

Objective 4: Improve connectivity

Policies as of 8/10/2010:

Improve connectivity for businesses in Cornwall.

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Improve and expanding Cornwall's railway with our partners, to provide a reliable core network and more frequent services, linking the main Cornish towns to each other and the rest of Country.

Work with partners to increase the amount of freight moved by rail and water to and from Cornwall.

Consideration will be given to reclassifying individual roads in view of future changes to land use patterns and transportation systems.

Consider the needs of HGV in road construction and rehabilitation on routes highlighted by the Freight Network Map.

Require landowners to dedicate land to Cornwall Council for road widening as a condition of site planning approval if applicable.

Provide improved sustainable ground transport connections to Newquay Cornwall airport.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects	Potential mitigation	Commentary
Areas of Outstanding Natural Beauty and the World Heritage Site.											
HSC1: Reduce the number of people killed and seriously injured in road collisions.	KSI total was 15% below the national baseline in 2006. Targets suggest a reduction of 30% by 2010/11 in KSI incidents.	-	-	0	-	-	-	Medium	0	Reduce traffic speeds. Target user groups at greatest risk of being in a road traffic collision.	Improving connectivity for business and making roads more user friendly for HGVs could potentially improve road safety through more efficient design. However, these improvements are likely to increase traffic flows increasing the opportunity for fatalities and injuries on the County's roads.
HSC2: Reduce levels crime and fear of crime.	Generally centred on speeding offences, drink driving offences and mobile phone use. 2005 there were 11,964 speeding offences compared to 6,289 in 2008.	0	0	0	0	0	0	Medium	0		These policies are not likely to have a significant effect on this objective.
HSC3: Encourage healthier lifestyles particularly by encouraging more people to walk and cycle.	The health of people in Cornwall is generally better than the England average. Both male and female life expectancies are higher than the England average. Over the last ten years early death rates from heart disease and stroke as well as early death rates from cancer have been declining and remain below the England average.	+	+	0	+	+	+	Medium	0		Ensuring new developments to provide good quality walking and cycling routes to transport infrastructure will aid fitness and wellbeing.
A1: Improve accessibility of jobs, shops and other amenities for rural communities.		++	++	0	+	++	++	High	Positive effects for economy and growth through improved access. Improved health through better access to services.	Consideration of socio-economic effects, including effects of deprivation and access, through project level EIA of qualifying schemes.	All of the above polices will directly support the accessibility objectives.
A2: Reduce the community severance effects of infrastructure.		++	++	0	+	++	++	High			
A3: Provide an inclusive transport network that meets the needs of		++	++	0	+	++	++	High			

Objective 4: Improve connectivity											
Policies as of 8/10/2010: Improve connectivity for businesses in Cornwall. Support and promote the services provided by Devon County Council, Plymouth City Council with other Local Authorities connecting Cornwall with the surrounding areas. Work with Plymouth City Council and the Highways Agency to protect and enhance the bridge and ferry crossings of the Tamar. Improve and expanding Cornwall's railway with our partners, to provide a reliable core network and more frequent services, linking the main Cornish towns to each other and the rest of Country. Work with partners to increase the amount of freight moved by rail and water to and from Cornwall. Consideration will be given to reclassifying individual roads in view of future changes to land use patterns and transportation systems. Consider the needs of HGV in road construction and rehabilitation on routes highlighted by the Freight Network Map. Require landowners to dedicate land to Cornwall Council for road widening as a condition of site planning approval if applicable. Provide improved sustainable ground transport connections to Newquay Cornwall airport.											
	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects	Potential mitigation	Commentary
society and specific groups such as the disabled and elderly.											
A4:Improve sustainable access to the countryside		0	0	0	0	0	0	Medium	0		These policies are not likely to have a significant effect on this objective.
E1: Invest in transport systems that will create a strong and sustainable economy by addressing economic barriers to growth, in particular access and congestion.		++	++	0	+	++	++	High	Health and wellbeing is likely to improve with successful economic growth.		All of the above polices will directly support this objective.

Summary

Main Effects of the Plan Objectives and Polices

The majority of policies under Objective 4 of the LTP have the potential to or do not support the SEA objectives. Policy is likely to have direct negative effects on SEA objectives; WSM2, WSM3, WSM4, BI1 and BI2. 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.

The construction needed to achieve the above polices will increase demand for minerals in aggregates and increase extraction volume, also there is likely to be negative effects on a diverse range of habitats and species. Traffic flows are likely to increase and natural landscapes will change. Green corridors and densely vegetated road verges could be lost through widening effecting habitat connectivity.

An increase in traffic flows, HGV travel and expanding the rail network will have negative effects on air quality and noise levels.

Expanding the rail network has the potential to need development in remote rural areas between major settlements. This could negatively change landscapes and effect designated AONB. Road widening and land take could have negative effects on distinctiveness and also have negative impacts on designated buildings.

Improving connectivity for business and making roads more user friendly for HGVs could potentially improve road safety through more efficient design. However, these improvements are likely to increase traffic flows increasing the opportunity for fatalities and injuries on the County's roads.

The above policy will directly support SEA objectives A1, A2, A3, A4 and E1. Accessibility across the County will be improved. In turn these accessibility improvements will help to expand economic growth.

Cumulative Effects of the Plan Objectives and Policies

More mineral extraction will be required effecting visual landscapes and biodiversity.

An increase in construction and demolition waste being sent to landfill will also have negative environmental effects.

Health and wellbeing is likely to improve with successful economic growth.

Expanding the rail network has the potential to need development in remote rural areas between major settlements. This could negatively change landscapes. Place distinctiveness and townscapes could also experience negative effects.

Biodiversity will suffer through an increase in poor air quality levels.

Noise increases can have negative effects on biodiversity and personal health and wellbeing due to an increase in nuisance levels.

Potential Mitigation and Recommendations for the LTP

The policy tends to negatively support the SEA objectives. There are several recommendations and mitigation methods which could be implemented to enhance the effectiveness of the above policies.

- Water quality monitoring during construction and operation of any major transport developments. Incorporate sustainable drainage systems.
- Use best practice techniques and design guides.
- Safeguarding of good quality agricultural land.
- Promoting businesses to allow home or remote working to avoid the need to travel.
- Encourage the reuse on site of construction and demolition waste.
- Encourage and set targets for the use of recycled materials in infrastructure construction.
- Avoid protected sites and incorporate ecological assessments into project design process.
- Air quality monitoring programmes. Concentration on AQMA improvements.
- Designated sites should be avoided and landscape enhancement should be incorporated into development projects.
- Reduce traffic speeds.
- Consider whether there are any specific elements relating to the environment that could be worked into rural roads protocol.
- Consideration of environmental effects through project level EIA of qualifying schemes.
- Ensure LTP proposals do not create new areas of exceedence.
- Target user groups at greatest risk of being in a road traffic collision.

The emphasis in the supporting text suggests for this policy objective suggests that 'connectivity' improvements will primarily consist of ICT infrastructure improvements. It would be beneficial if this were clearer in the policy text.

Objective 5: Resilient and reliable transport system for goods and services

Policies as of 8/10/2010:

Give priority to the enhancement of bus services when setting priorities for all infrastructure projects, and particularly for those that serve developing communities.

Facilitate the ability to combine cycling with bus, rail and ferry journeys.

Work with the public sector and private partners to protect, promote and enhance ferry services in Cornwall.

Provide permanent or seasonal park and ride facilities where inception of car journeys will relieve congestion in the town centre/area it serves.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long		Identify other receptors with interrelated effects		
WSM1: Minimise the impact of the transport network on the quality and quantity of the county's water resources.	19 surface sources operated by South West Water. Total of 79,813 million litres. In the South West river basin district 23 per cent of waters meet good ecological status and 41 per cent do not meet good status (449 water bodies). The majority of water bodies that fail to meet good status fail because of the phosphorus, fish and diatom elements of classification. Surface runoff from transport routes could be effecting water quality.	0	0	0	0	0	0	Medium			These policies are not likely to have a significant effect on this objective.
WSM2: Reduce contamination and safeguard soil structure quality and quantity from transport systems and infrastructure.	Shillet is most common soil type. Tend to be low in phosphates with impeded drainage, are difficult to manage in winter, but are highly productive if drained properly. 0.1% of agricultural land is Grade 1, 8% is Grade 2 and 61.2% is Grade 3a and 3b, the remainder is urban or poor. Contaminated land has largely arisen due to historical industrial activity, mainly mining.	+	+	0	-	+	+	Medium	Biodiversity could experience short term negative effects through land take, as could landscapes.	Safeguard good quality agricultural land. Consideration of land take, land use, severance, soil quality and contamination effects through project level EIA of qualifying schemes.	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 effects on soil quality. However, in the long term more efficient public transport links will reduce the amount of private motor car travel reducing emissions and soil acidification. There will also be less need for construction of transport infrastructure.
WSM3: Minimise the impact of transport on mineral resources.	Minerals currently exploited in the county are granite for aggregates and building stones, china clay, slate and sandstone. 2009 production of primary aggregates in Cornwall was around 1.43 million tonnes; this is	+	+	0	-	+	+	Medium	Landscapes could suffer in the short term due to increased extraction of minerals.	Encourage the reuse of onsite materials and the use of recycled materials in construction. Set targets for the use of recycled	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 effects on mineral resources in the short term due to an increase needed in construction aggregates.

Objective 5: Resilient and reliable transport system for goods and services

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Work with the public sector and private partners to protect, promote and enhance ferry services in Cornwall.

Provide permanent or seasonal park and ride facilities where inception of car journeys will relieve congestion in the town centre/area it serves.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long		Identify other receptors with interrelated effects		
	principally from 12 quarries throughout the County. China clay production contributes around £100 million to the UK balance of payments and makes a significant contribution to Cornwall's local economy each year. 2009 production of china clay was estimated to be in the region of 1.6 million tonnes.									materials in infrastructure construction. Consideration of waste generation and disposal through EIA of qualifying schemes.	
WSM4: Minimise the waste produced by transport systems and infrastructure.	Construction and demolition waste is the largest waste stream, 452,000 tonnes produced in 2008/09, 39% sent to landfill. Municipal waste arising 314,311. 63% sent to landfill. Need to reduce landfilling. Planning appeal logged for 240,000 tonne capacity energy from waste plant.	+	+	0	-	+	+	Medium		Recycling initiatives and the use of construction waste materials for landscaping. Set targets for the use of recycled materials in infrastructure construction. Consideration of waste generation and disposal through EIA of qualifying schemes.	There will potentially be an increase of construction waste in the short term, however, this is likely to decrease in the future once enhancement of bus services has taken place and park and rides have been developed.
BI1: Conservation and enhancement of protected habitats and species and making a positive contribution to the local BAP.	41 BAP habitats found in Cornwall covering some 19652 ha overall. There are currently 496 County Wildlife Sites in Cornwall covering nearly 33,000 hectares or 10% of the county's land area. 166 Sites of Special Scientific Interest. 17 SACs, 3 Inshore Marine cSACs and 16 SPAs.	+	+	0	-	+	+	Medium		Mitigation hierarchy of avoidance, reduction and compensation. Protection of designated sites. Consideration of ecology and biodiversity effects through project level EIA of qualifying schemes.	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 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.
BI2: Improvement of		0	0	0	0	0	0	Medium		Promote	These policies are not likely to have a significant

Objective 5: Resilient and reliable transport system for goods and services

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	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long		Identify other receptors with interrelated effects		
ecological coherence, habitat connectivity and climate change resilience and adaption.									opportunities for improving habitat connectivity and ecological coherence as part of development approval process.	effect on this objective.	
AQ1: Reduce social, economic and environmental costs of transport on air quality.	2 AQMAs; Bodmin AQMA and Camborne, Pool and Redruth.AQMA. Pollutants of most concern are traffic-related fine airborne particulate matter and Nitrogen dioxide. A third AQMA is being considered for Tideford, again traffic related pollution. Air quality in the county is generally good.	+	+	0	+	+	+	Medium	Biodiversity, water resources and soil quality will benefit from a reduction in air pollution. Air quality monitoring programmes. Concentration on AQMA improvements. Consideration of air quality effects through project level EIA of qualifying schemes. Ensure LTP proposals do not create new areas of exceedence.	Giving priority to the enhancement of bus services and the development of park and ride facilities will help reduce emissions from private motor vehicles and reduce congestion problems. Promoting the use of ferry services in Cornwall will also have a positive effect.	
N1: Reduce the noise impact of the transport system.	Cornwall Quality of Life Survey indicated that 18.3% of respondents, in their opinion, thought vehicle noise was a 'very big' or 'fairly big' problem when considering contributors to neighbourhood and environmental problems. Over 40% felt it was 'not a very big problem' and fewer than 40% felt it was 'not a problem at all'.	+	+	0	+	+	+	Low	Noise monitoring. Consideration of noise effects through project level EIA of qualifying schemes.	Giving priority to the enhancement of bus services and the development of park and ride facilities will help reduce noise nuisance from private motor vehicles and reduce congestion problems. Promoting the use of ferry and rail services in Cornwall will also have a positive effect.	
CC1: Mitigation: reduce the contribution of transportation to greenhouse gas emissions.	8.16 tonnes of CO ₂ were released per capita in Cornwall in 2006. Lowest per capita emissions were found in the Isles of Scilly, with 5.73 tonnes.	+	+	0	+	+	+	Medium	Air quality monitoring programmes. Concentration on AQMA improvements.	Giving priority to the enhancement of bus services and the development of park and ride facilities will help reduce emissions from private motor vehicles and reduce congestion problems. Promoting the use of ferry and rail services in Cornwall will also have a positive effect.	

Objective 5: Resilient and reliable transport system for goods and services

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Work with the public sector and private partners to protect, promote and enhance ferry services in Cornwall.

Provide permanent or seasonal park and ride facilities where inception of car journeys will relieve congestion in the town centre/area it serves.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long		Identify other receptors with interrelated effects		
	Road transport accounted for 29% of CO ₂ emissions in Cornwall for 2006. Two thirds of Cornish road transport carbon emissions are from private cars.									Consideration of carbon effects through project level EIA of qualifying schemes.	
CC2: Adaptation: minimise the vulnerability of the transport infrastructure to climate change.	DEFRA and the Environment Agency have identified which coastal sites and features are most at risk within the next 20 years of sea level change. Mullion Harbour and Godrevy feature in the high risk category and Boscastle Harbour falls into the medium risk category. Over the next 100 years around 15-30 km of additional roads in Cornwall are liable to become inundated by extreme tide levels. 3-5km of these are A roads, 2-4km are B roads, 5-9km C roads and 6-11km are unclassified roads.	0	0	0	0	0	0	Medium			These policies are not likely to have a significant effect on this objective.
LTCH1: Create places, spaces and buildings that enhance local distinctiveness, appearance and sense of place.	12,490 Listed Buildings, 1,872 Scheduled Monuments, 145 Conservation Areas (4070 ha)	+	+	0	-	+	+	Medium	Helping to preserve the landscapes/townscapes in the long term will also benefit biodiversity and health and wellbeing.	Consideration of landscape and cultural heritage effects through project level EIA of qualifying schemes.	In the long term landscapes, designated sites and protected buildings are likely to benefit from more efficient bus services. This will decrease traffic flows and limit the need for new routes helping to safeguard existing landscape assets. Townscapes will be improved through less congestion and traffic flow.
LTCH2: Protect and enhance buildings, sites, structures and heritage assets that contribute to the quality of countryside, townscape and the public realm.	36 Registered Parks and Gardens (3720 ha), 2 Registered Battle Fields (115 ha), Cornish Mining World Heritage Site 18, 222 ha; 5.5% of Cornwall.	+	+	0	-	+	+	Medium			
LTCH3: Protect and enhance landscape character and local		+	+	0	-	+	+	Medium			

Objective 5: Resilient and reliable transport system for goods and services

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Facilitate the ability to combine cycling with bus, rail and ferry journeys.

Work with the public sector and private partners to protect, promote and enhance ferry services in Cornwall.

Provide permanent or seasonal park and ride facilities where inception of car journeys will relieve congestion in the town centre/area it serves.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects Identify other receptors with interrelated effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long				
distinctiveness including Areas of Outstanding Natural Beauty and the World Heritage Site.											
HSC1: Reduce the number of people killed and seriously injured in road collisions.	KSI total was 15% below the national baseline in 2006. Targets suggest a reduction of 30% by 2010/11 in KSI incidents.	+	+	0	+	+	+	Medium		Target user groups at greatest risk of being in a road traffic collision.	Reducing the volume of motorised traffic through bus service improvements should make a direct contribution to reducing the amount of people killed and injured on the County's roads.
HSC2: Reduce levels crime and fear of crime.	Generally centred on speeding offences, drink driving offences and mobile phone use. 2005 there were 11,964 speeding offences compared to 6,289 in 2008.	0	0	0	0	0	0	Medium			These policies are not likely to have a significant effect on this objective.
HSC3: Encourage healthier lifestyles particularly by encouraging more people to walk and cycle.	The health of people in Cornwall is generally better than the England average. Both male and female life expectancies are higher than the England average. Over the last ten years early death rates from heart disease and stroke as well as early death rates from cancer have been declining and remain below the England average.	+	+	0	+	+	+	Medium			Providing a wider choice of transport modes and encouraging walking and cycling will directly support this SEA Objective. People using public transport are much more likely to incorporate active travel into their journey, normally at the start or finish.
A1: Improve accessibility of jobs, shops and other amenities for rural communities.		++	++	0	+	++	++	High	Positive effects for economy and growth through improved access. Improved health through better access to services.	Consideration of socio-economic effects, including effects of deprivation and access, through project level EIA of qualifying schemes.	Give priority to the enhancement of bus services when setting priorities for all infrastructure projects, and particularly for those that serve developing communities, will improve accessibility and severance issues across the County. Facilitate the ability to combine cycling with bus, rail and ferry journeys will also provide alternative travel options and routes.
A2: Reduce the community severance effects of infrastructure.		++	++	0	+	++	++	High			
A3: Provide an inclusive transport network that meets the needs of society and specific groups such as the		0	0	0	0	0	0	Medium			

Objective 5: Resilient and reliable transport system for goods and services											
Policies as of 8/10/2010: Give priority to the enhancement of bus services when setting priorities for all infrastructure projects, and particularly for those that serve developing communities. Facilitate the ability to combine cycling with bus, rail and ferry journeys. Work with the public sector and private partners to protect, promote and enhance ferry services in Cornwall. Provide permanent or seasonal park and ride facilities where inception of car journeys will relieve congestion in the town centre/area it serves.											
	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long		Identify other receptors with interrelated effects		
	disabled and elderly.										
	A4: Improve sustainable access to the countryside	0	0	0	0	0	0	Medium			These policies are not likely to have a significant effect on this objective.
	E1: Invest in transport systems that will create a strong and sustainable economy by addressing economic barriers to growth, in particular access and congestion.	+	+	0	+	+	+	Medium	Health and wellbeing is likely to improve with successful economic growth.		Improving existing bus services and developing park and ride facilities will not only improve access but will help to reduce congestion.

Summary

Main Effects of the Plan Objectives and Policies

The policies under Objective 5 of the LTP 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 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. There will also be less need for construction of transport infrastructure.

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 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

Giving priority to the enhancement of bus services and the development of park and ride facilities will help reduce gas emissions and noise nuisance from private motor vehicles and reduce congestion problems. Promoting the use of ferry services in Cornwall will also have a positive effect.

In the long term landscapes, designated sites and protected buildings are likely to benefit from more efficient bus services. This will decrease traffic flows and limit the need for new routes helping to safeguard existing landscape assets. Townscapes will also be improved through less congestion and traffic flow.

Reducing the volume of motorised traffic through bus service improvements should make a direct contribution to reducing the amount of people killed and injured on the County's roads.

Providing a wider choice of transport modes and encouraging walking and cycling will directly support this SEA Objective HSC3. People using public transport are much more likely to incorporate active travel into their journey, normally at the start or finish.

Give priority to the enhancement of bus services when setting priorities for all infrastructure projects, and particularly for those that serve developing communities, will improve accessibility and severance issues across the County. Facilitating the ability to combine cycling with bus, rail and ferry journeys will also provide alternative travel options and routes. The above policy directly supports SEA objective A1 and A2.

Cumulative Effects of the Plan Objectives and Policies

Biodiversity could experience short term negative effects through land take, as could landscapes. Landscapes could ALSO suffer in the short term due to increased extraction of minerals. Helping to preserve the landscapes/townscapes in the long term will also benefit biodiversity and health and wellbeing.

There are likely to be positive effects for economic growth and health through better access to services and amenities.

Potential Mitigation and Recommendations for the LTP

Improvements can be made to the effectiveness of policy by;

- Safeguarding good quality agricultural land.
- Encourage the reuse of onsite materials and the use of recycled materials in construction.
- Set targets for the use of recycled materials in infrastructure construction.
- Recycling initiatives and the use of construction waste materials for landscaping.
- Air quality monitoring programmes. Concentration on AQMA improvements.
- Noise monitoring.
- Consider whether there are any specific elements relating to the environment that could be worked into rural roads protocol.
- Consideration of environmental effects through project level EIA of qualifying schemes.
- Ensure LTP proposals do not create new areas of exceedence.
- Target user groups at greatest risk of being in a road traffic collision.

Objective 6: Support the rural vitality and integrity of our towns

Policies as of 8/10/2010:

Identify and investigate public-private partnership opportunities for the delivery of transportation infrastructure and services, and encourage the submission of related proposals.

Support and promote the bus services connecting Cornwall's urban areas and inter urban areas.

Support the development of interurban passenger transport hubs to facilitate the integration of bus, taxi and/or rail.

Pursue opportunities to provide or designate daily parking spaces for bus customers at existing or new developments to create car/bus interchange points.

Ensure that sufficient advantageously located short term parking for businesses is available, particularly those in the main urban areas, by:

- Providing on-street parking in locations that does not compromise pedestrian and cycle movements and public transport operations and loading and unloading for businesses.
- Placing priority on short-term parking space provision in Cornwall-controlled parking facilities, in addition to short term spaces provided in private facilities.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long		Identify other receptors with interrelated effects		
WSM1: Minimise the impact of the transport network on the quality and quantity of the county's water resources.	19 surface sources operated by South West Water. Total of 79,813 million litres. In the South West river basin district 23 per cent of waters meet good ecological status and 41 per cent do not meet good status (449 water bodies). The majority of water bodies that fail to meet good status fail because of the phosphorus, fish and diatom elements of classification. Surface runoff from transport routes could be effecting water quality.	0	0	0	0	0	0	Medium			These policies are not likely to have a significant effect on this objective.
WSM2: Reduce contamination and safeguard soil structure quality and quantity from transport systems and infrastructure.	Shillet is most common soil type. Tend to be low in phosphates with impeded drainage, are difficult to manage in winter, but are highly productive if drained properly. 0.1% of agricultural land is Grade 1, 8% is Grade 2 and 61.2% is Grade 3a and 3b, the remainder is urban or poor. Contaminated land has largely arisen due to historical industrial activity, mainly mining.	+	+	0	0	+	+	Medium / High	Potential biodiversity benefits from improved air quality and soil. Landscapes will potential benefit from the protection of areas of good quality agricultural land.	Safeguard good quality agricultural land. Consideration of land take, land use, severance, soil quality and contamination effects through project level EIA of qualifying schemes.	These projects may reduce the number of private car journeys, so may reduce emissions and have a positive effect on soil quality; however the effect is not likely to be significant. The policies may help to reduce land take in the long term for road schemes.
WSM3: Minimise the impact of transport on mineral resources.	Minerals currently exploited in the county are granite for aggregates and building stones, china clay, slate and sandstone. 2009 production of primary aggregates in	+	+	0	0	0	+	Medium		Recycling initiatives Encouraging the use of recycled materials in construction aggregates	By implementing these policy initiatives to encourage more sustainable transport systems and infrastructure, in the long term there is likely to be a reduction in transport infrastructure construction. When more people are using sustainable modes and an integrated alternatives

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Support the development of interurban passenger transport hubs to facilitate the integration of bus, taxi and/or rail.

Pursue opportunities to provide or designate daily parking spaces for bus customers at existing or new developments to create car/bus interchange points.

Ensure that sufficient advantageously located short term parking for businesses is available, particularly those in the main urban areas, by:

- Providing on-street parking in locations that does not compromise pedestrian and cycle movements and public transport operations and loading and unloading for businesses.
- Placing priority on short-term parking space provision in Cornwall-controlled parking facilities, in addition to short term spaces provided in private facilities.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects Identify other receptors with interrelated effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long				
	Cornwall was around 1.43 million tonnes; this is principally from 12 quarries throughout the County. China clay production contributes around £100 million to the UK balance of payments and makes a significant contribution to Cornwall's local economy each year. 2009 production of china clay was estimated to be in the region of 1.6 million tonnes.									Consideration of waste generation and disposal through EIA of qualifying schemes.	network has been created there will be less need for major new route development. This in turn will result in a reduction of mineral aggregates required for construction and will ease pressure on extraction.
WSM4: Minimise the waste produced by transport systems and infrastructure.	Construction and demolition waste is the largest waste stream, 452,000 tonnes produced in 2008/09, 39% sent to landfill. Municipal waste arising 314,311. 63% sent to landfill. Need to reduce landfilling. Planning appeal logged for 240,000 tonne capacity energy from waste plant.	+	+	0	0	0	+	Medium		Consideration of waste generation and disposal through EIA of qualifying schemes.	Reducing the need for construction and focussing on improvements in travel planning and integration of bus, taxi or rail is likely to positively contribute to reducing the amount of waste generation linked to transport. These policies are not likely to have a significant effect on this objective.
BI1: Conservation and enhancement of protected habitats and species and making a positive contribution to the local BAP.	41 BAP habitats found in Cornwall covering some 19652 ha overall. There are currently 496 County Wildlife Sites in Cornwall covering nearly 33,000 hectares or 10% of the county's land area. 166 Sites of Special Scientific Interest.	+	+	0	-	+	+	Medium		Mitigation hierarchy of avoidance, reduction and compensation. Protection of designated sites.	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.
BI2: Improvement of ecological coherence, habitat connectivity and climate change resilience and adaptation.	17 SACs, 3 Inshore Marine cSACs and 16 SPAs.	0	0	0	0	0	0	Medium		Promote opportunities for improving habitat connectivity and ecological coherence	These policies are not likely to have a significant effect on this objective.

Objective 6: Support the rural vitality and integrity of our towns

Policies as of 8/10/2010:

Identify and investigate public-private partnership opportunities for the delivery of transportation infrastructure and services, and encourage the submission of related proposals.

Support and promote the bus services connecting Cornwall's urban areas and inter urban areas.

Support the development of interurban passenger transport hubs to facilitate the integration of bus, taxi and/or rail.

Pursue opportunities to provide or designate daily parking spaces for bus customers at existing or new developments to create car/bus interchange points.

Ensure that sufficient advantageously located short term parking for businesses is available, particularly those in the main urban areas, by:

- Providing on-street parking in locations that does not compromise pedestrian and cycle movements and public transport operations and loading and unloading for businesses.
- Placing priority on short-term parking space provision in Cornwall-controlled parking facilities, in addition to short term spaces provided in private facilities.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects Identify other receptors with interrelated effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long				
										as part of development approval process.	
AQ1: Reduce social, economic and environmental costs of transport on air quality.	2 AQMAs; Bodmin AQMA and Camborne, Pool and Redruth.AQMA. Pollutants of most concern are traffic-related fine airborne particulate matter and Nitrogen dioxide. A third AQMA is being considered for Tideford, again traffic related pollution. Air quality in the county is generally good.	+/-	+/-	0	0	+/-	+/-	Medium		Air quality monitoring. Concentration on AQMA improvements. Policy must ensure that development does not make air pollution worse in current AQMAs. Design guides should promote sustainable transport modes where possible. Consideration of air quality effects through project level EIA of qualifying schemes. Ensure LTP proposals do not create new areas of exceedence.	Investigating public-private partnership opportunities for public transport infrastructure and supporting and promoting the bus services connecting Cornwall's urban areas and inter urban areas will help to reduce poor air quality levels. Ensuring that sufficient short-term parking is provided for business, particularly in urban centres may not help to reduce congestion during peak times and may encourage the use of private motor vehicles.
N1: Reduce the noise impact of the transport system.	Cornwall Quality of Life Survey indicated that 18.3% of respondents, in their opinion, thought vehicle noise was a 'very big' or 'fairly big' problem when considering contributors to neighbourhood and environmental problems. Over 40% felt it was 'not a very big problem' and fewer	+/-	+/-	0	0	+/-	+/-	Medium		Noise monitoring. Introduction of noise reducing materials in any construction. Seek to actively promote sustainable modes and encourage active travel. Design guides	Investigating public-private partnership opportunities for public transport infrastructure and supporting and promoting the bus services connecting Cornwall's urban areas and inter urban areas will help to reduce noise levels from private motor vehicles. Ensuring that sufficient short-term parking is provided for business, particularly in urban centres may not help to reduce congestion during peak times and may encourage the use of private

Objective 6: Support the rural vitality and integrity of our towns

Policies as of 8/10/2010:

Identify and investigate public-private partnership opportunities for the delivery of transportation infrastructure and services, and encourage the submission of related proposals.

Support and promote the bus services connecting Cornwall's urban areas and inter urban areas.

Support the development of interurban passenger transport hubs to facilitate the integration of bus, taxi and/or rail.

Pursue opportunities to provide or designate daily parking spaces for bus customers at existing or new developments to create car/bus interchange points.

Ensure that sufficient advantageously located short term parking for businesses is available, particularly those in the main urban areas, by:

- Providing on-street parking in locations that does not compromise pedestrian and cycle movements and public transport operations and loading and unloading for businesses.
- Placing priority on short-term parking space provision in Cornwall-controlled parking facilities, in addition to short term spaces provided in private facilities.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects Identify other receptors with interrelated effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long				
	than 40% felt it was 'not a problem at all'.									should promote sustainable transport modes where possible. Consideration of noise effects through project level EIA of qualifying schemes.	motor vehicles, sustaining or even increasing noise levels from traffic flows.
CC1: Mitigation: reduce the contribution of transportation to greenhouse gas emissions.	8.16 tonnes of CO ₂ were released per capita in Cornwall in 2006. Lowest per capita emissions were found in the Isles of Scilly, with 5.73 tonnes. Road transport accounted for 29% of CO ₂ emissions in Cornwall for 2006. Two thirds of Cornish road transport carbon emissions are from private cars.	+	+	0	0	+	+	Low		Consideration of air quality effects through project level EIA of qualifying schemes	Despite providing short term parking for business, overall, promoting the bus services connecting Cornwall's urban areas and inter urban areas, and enhancing existing bus routes, should locally help to reduce the amount of greenhouse gases emitted from private motor vehicles. Cumulatively this should also help reduce the County's contribution to GHG emissions.
CC2: Adaptation: minimise the vulnerability of the transport infrastructure to climate change.	DEFRA and the Environment Agency have identified which coastal sites and features are most at risk within the next 20 years of sea level change. Mullion Harbour and Godrevy feature in the high risk category and Boscastle Harbour falls into the medium risk category. Over the next 100 years around 15-30 km of additional roads in Cornwall are liable to become inundated by extreme tide levels. 3-5km of these are A roads, 2-4km are B roads, 5-9km C roads and 6-11km are	0	0	0	0	0	0	Medium			These policies are not likely to have a significant effect on this objective.

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	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects Identify other receptors with interrelated effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long				
	unclassified roads.										
LTCH1: Create places, spaces and buildings that enhance local distinctiveness, appearance and sense of place.	12,490 Listed Buildings, 1,872 Scheduled Monuments, 145 Conservation Areas (4070 ha) 36 Registered Parks and Gardens (3720 ha), 2 Registered Battle Fields (115 ha), Cornish Mining World Heritage Site 18, 222 ha; 5.5% of Cornwall.	+/-	+/-	0	0	+/-	+/-	Low	Any construction required for development will require land take. This could have negative effects on biodiversity.	Landscape and cultural heritage assessments on proposed developments. Consideration of landscape and cultural heritage effects through project level EIA of qualifying schemes.	A reduction in motorised traffic flows through improved bus services and the creation of transport interchange points will improve landscapes and enhance place distinctiveness. However providing and improving short-term parking facilities for business, especially on street parking in urban centres, could promote more traffic flows and have potential negative impacts on place distinctiveness and townscape.
LTCH2: Protect and enhance buildings, sites, structures and heritage assets that contribute to the quality of countryside, townscape and the public realm.		+/-	+/-	0	0	+/-	+/-	Low			
LTCH3: Protect and enhance landscape character and local distinctiveness including Areas of Outstanding Natural Beauty and the World Heritage Site.		+/-	+/-	0	0	+/-	+/-	Low			
HSC1: Reduce the number of people killed and seriously injured in road collisions.	KSI total was 15% below the national baseline in 2006. Targets suggest a reduction of 30% by 2010/11 in KSI incidents.	+	+	0	+	+	+	Medium		Target user groups at greatest risk of being in a road traffic collision.	These projects may reduce the number of private car journeys being undertaken. This in turn should reduce the exposure of the population to traffic hazards, therefore helping to reduce the number of people killed or seriously injured on the road.
HSC2: Reduce levels crime and fear of crime.	Generally centred on speeding offences, drink driving offences and mobile phone use. 2005 there were 11,964 speeding offences compared to 6,289 in 2008.	0	0	0	0	0	0	Medium			These policies are not likely to have a significant effect on this objective.
HSC3: Encourage healthier lifestyles particularly by encouraging more people to walk and cycle.	The health of people in Cornwall is generally better than the England average. Both male and female life expectancies are higher than the England average. Over the last ten years early	?	?	0	0	?	?	Low	There will be a reduction in motorised travel helping to improve air quality, noise levels, landscapes and biodiversity.	Promote sustainable transport modes and encourage active travel.	It is unclear how these policies might affect this objective. Reducing private motor car travel through improved transport interchange points and improved bus services will encourage more people to walk to and from services potentially having positive impacts on health.

Objective 6: Support the rural vitality and integrity of our towns

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Identify and investigate public-private partnership opportunities for the delivery of transportation infrastructure and services, and encourage the submission of related proposals.

Support and promote the bus services connecting Cornwall's urban areas and inter urban areas.

Support the development of interurban passenger transport hubs to facilitate the integration of bus, taxi and/or rail.

Pursue opportunities to provide or designate daily parking spaces for bus customers at existing or new developments to create car/bus interchange points.

Ensure that sufficient advantageously located short term parking for businesses is available, particularly those in the main urban areas, by:

- Providing on-street parking in locations that does not compromise pedestrian and cycle movements and public transport operations and loading and unloading for businesses.
- Placing priority on short-term parking space provision in Cornwall-controlled parking facilities, in addition to short term spaces provided in private facilities.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long				
	death rates from heart disease and stroke as well as early death rates from cancer have been declining and remain below the England average.								Identify other receptors with interrelated effects		Improving short-term parking facilities for business may discourage people from using active travel options.
A1: Improve accessibility of jobs, shops and other amenities for rural communities.		+	+	0	+	+	+	Medium	Health and wellbeing is likely to improve with successful economic growth, through better accessibility to services and economic infrastructure.	Consideration of socio-economic effects, including effects of deprivation and access, through project level EIA of qualifying schemes.	Helping to improve existing bus services, especially those connecting urban and inter urban areas and the development of transport hubs to fully integrate modal options will help improve access throughout the county. Improving the provision of short-term parking spaces will improve access to business and will potentially help to meet the needs of the elderly and disabled.
A2: Reduce the community severance effects of infrastructure.		+	+	0	+	+	+	Medium			
A3: Provide an inclusive transport network that meets the needs of society and specific groups such as the disabled and elderly.		+	+	0	+	+	+	Medium			
A4: Improve sustainable access to the countryside		+	+	0	+	+	+	Medium			
E1: Invest in transport systems that will create a strong and sustainable economy by addressing economic barriers to growth, in particular access and congestion.		+	+	0	0	+	+	High	Improving economic growth through the above policies is likely to improve personal wellbeing with more people having access to work and perhaps earning more money.		Providing better integrated transport systems will encourage economic growth across the County. Ensuring that sufficient short-term parking is also available for business will help to support certain business activity and operations.

Summary

Main Effects of the Plan Objectives and Polices

The policy under Objective 6 of the LTP has several areas where there could either be positive or negative effects. This is the case for SEA objectives AQ1, N1, LTCH1, LTCH2 and LTCH3. Investigating public-private partnership opportunities for public transport infrastructure and supporting and promoting the bus services connecting Cornwall's urban areas and inter urban areas will help to reduce poor air quality and noise levels. However, ensuring that sufficient short-term parking is provided for business, particularly in urban centres may not help to reduce congestion during peak times and may encourage the use of private motor vehicles having negative effects on air and noise quality levels. A reduction in motorised traffic flows through improved bus services and the creation of transport interchange points will improve landscapes and enhance place distinctiveness. However, providing and improving short-term parking facilities for business, especially on street parking in urban centres, could promote more traffic flows and have potential negative impacts on place distinctiveness and townscape.

It is unclear how these policies might affect SEA objective HSC3. Reducing private motor car travel through improved transport interchange points and improved bus services will encourage more people to walk to and from services potentially having positive impacts on health, but improving short-term parking facilities for business may discourage people from using active travel options.

The proposals with the policy may reduce the number of private car journeys, so may reduce emissions and have a positive effect on soil quality; however the effect is not likely to be significant. The policies may help to reduce land take in the long term for road schemes.

By implementing these policy initiatives to encourage more sustainable transport systems and infrastructure, in the long term there is likely to be a reduction in transport infrastructure construction. When more people are using sustainable modes and an integrated alternatives transport network has been created there will be less need for major new route development. This in turn will result in a reduction of mineral aggregates required for construction and will ease pressure on extraction and reduce construction waste.

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.

Despite providing short term parking for business, overall, promoting the bus services connecting Cornwall's urban areas and inter urban areas, and enhancing existing bus routes, should locally help to reduce the amount of greenhouse gases emitted from private motor vehicles. Cumulatively this should also help reduce the County's contribution to GHG emissions.

These projects may reduce the number of private car journeys being undertaken. This in turn should reduce the exposure of the population to traffic hazards, therefore helping to reduce the number of people killed or seriously injured on the road.

Helping to improve existing bus services, especially those connecting urban and inter urban areas and the development of transport hubs to fully integrate modal options will help improve access throughout the County. Improving the provision of short-term parking spaces will improve access to business and will potentially help to meet the needs of the elderly and disabled. Providing better integrated transport systems will encourage economic growth across the County. Ensuring that sufficient short-term parking is also available for business will help to support certain business activity and operations.

Cumulative Effects of the Plan Objectives and Policies

There is the potential for biodiversity benefits from improved air quality and soil.

Landscapes will potential benefit from the protection of areas of good quality agricultural land.

There is the potential for a reduction in motorised travel helping to improve air quality, noise levels, landscapes and biodiversity.

Improving economic growth through the above policies is likely to improve personal wellbeing with more people having access to work and perhaps earning more money.

Potential Mitigation and Recommendations for the LTP

Mitigation and recommendations are as follows;

- Promote opportunities for improving habitat connectivity and ecological coherence as part of development approval process.
- Safeguarding good quality agricultural land.
- Encourage the reuse of onsite materials and the use of recycled materials in construction.
- Set targets for the use of recycled materials in infrastructure construction.
- Recycling initiatives and the use of construction waste materials for landscaping.
- Air quality monitoring programmes. Concentration on AQMA improvements.

- Noise monitoring.
- Landscape and cultural heritage assessments on proposed developments.
- Seek to promote sustainable transport modes and active travel options where possible.
- Consider whether there are any specific elements relating to the environment that could be worked into rural roads protocol.
- Consideration of environmental effects through project level EIA of qualifying schemes.
- Ensure LTP proposals do not create new areas of exceedence.
- Target user groups at greatest risk of being in a road traffic collision.

Objective 7: Reduce the need to travel

Policies as of 8/10/2010:

Ensure new employment centres are located in areas with good public transport services and walking and cycling infrastructure.

Travel Plans will be required for all developments that are deemed likely to have an impact on the local transport network, including the following:

I. Residential, commercial, employment and educational developments;

ii. Smaller developments that would generate significant amounts of travel;

iii. New, or significantly extended, schools;

iv. Development comprising or involving a significant increase in existing car parking provision at employment, retail or leisure sites, schools, colleges, hospitals or health centres; and

V. Development proposals in locations where traffic conditions have been identified as a matter of concern by the local highway authority.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects Identify other receptors with interrelated effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long				
WSM1: Minimise the impact of the transport network on the quality and quantity of the county's water resources.	19 surface sources operated by South West Water. Total of 79,813 million litres. In the South West river basin district 23 per cent of waters meet good ecological status and 41 per cent do not meet good status (449 water bodies). The majority of water bodies that fail to meet good status fail because of the phosphorus, fish and diatom elements of classification. Surface runoff from transport routes could be effecting water quality.	0	0	0	0	0	0	Medium	0	0	These policies are not likely to have a significant effect on this objective.
WSM2: Reduce contamination and safeguard soil structure quality and quantity from transport systems and infrastructure.	Shillet is most common soil type. Tend to be low in phosphates with impeded drainage, are difficult to manage in winter, but are highly productive if drained properly. 0.1% of agricultural land is Grade 1, 8% is Grade 2 and 61.2% is Grade 3a and 3b, the remainder is urban or poor. Contaminated land has largely arisen due to historical industrial activity, mainly mining.	+	+	0	0	0	+	Medium	Potential local benefits for biodiversity if soil quality can be improved.	Safeguard good quality agricultural land. Consideration of land take, land use, severance, soil quality and contamination effects through project level EIA of qualifying schemes.	Ensuring new employment centres are located in areas with good public transport services and walking and cycling infrastructure will potentially reduce the amount of land take needed for transport infrastructure in the long-term.
WSM3: Minimise the impact of transport on mineral resources.	Minerals currently exploited in the county are granite for aggregates and building stones, china clay, slate and sandstone. 2009 production	+	+	0	-	-	+	Medium	If more mineral extraction is required effect visual landscapes and biodiversity.	Safeguard good quality agricultural land. Consideration of	Creating new employment centres in areas with good public transport services could potentially mean negative effects in the short-term. The need for less construction of transport infrastructure in the future will benefit mineral resources.

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	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects Identify other receptors with interrelated effects	Potential mitigation	Commentary
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	of primary aggregates in Cornwall was around 1.43 million tonnes; this is principally from 12 quarries throughout the County. China clay production contributes around £100 million to the UK balance of payments and makes a significant contribution to Cornwall's local economy each year. 2009 production of china clay was estimated to be in the region of 1.6 million tonnes.									waste generation and disposal though EIA of qualifying schemes.	
WSM4: Minimise the waste produced by transport systems and infrastructure.	Construction and demolition waste is the largest waste stream, 452,000 tonnes produced in 2008/09, 39% sent to landfill. Municipal waste arising 314,311. 63% sent to landfill. Need to reduce landfilling. Planning appeal logged for 240,000 tonne capacity energy from waste plant.	+	+	0	-	-	+	low	An increase in construction and demolition waste being sent to landfill will have negative environmental effects.	Recycling initiatives Encouraging the use of recycled materials in construction aggregates. Consideration of waste generation and disposal though EIA of qualifying schemes.	Creating new employment centres in areas with good public transport services could potentially mean an increase in construction in the short-term. The need for less construction of transport infrastructure in the future will reduce construction waste levels. Compulsory travel plans for specific developments should encourage active travel.
BI1: Conservation and enhancement of protected habitats and species and making a positive contribution to the local BAP.	41 BAP habitats found in Cornwall covering some 19652 ha overall. There are currently 496 County Wildlife Sites in Cornwall covering nearly 33,000 hectares or 10% of the county's land area. 166 Sites of Special Scientific Interest. 17 SACs, 3 Inshore Marine cSACs and 16 SPAs.	+	+	0	-	-	+	Medium		Mitigation hierarchy of avoidance, reduction and compensation. Protection of designated sites.	Creating new employment development focusing around areas with existing good public transport services and walking and cycling infrastructure could have a negative effect on biodiversity in the short-term due to an increase in construction. However, promoting development in areas with urban characteristics could help to safeguard biodiversity in the long term.
BI2: Improvement of ecological coherence, habitat connectivity and climate change resilience and adaption.		+	+	0	-	-	+	Medium		Policy for development should aim to avoid adverse effects and identify opportunities for	

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v. Development proposals in locations where traffic conditions have been identified as a matter of concern by the local highway authority.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects Identify other receptors with interrelated effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long				
										improving habitat connectivity and ecological coherence. Consideration of ecology and biodiversity effects through project level EIA of qualifying schemes.	
AQ1: Reduce social, economic and environmental costs of transport on air quality.	2 AQMAs; Bodmin AQMA and Camborne, Pool and Redruth.AQMA. Pollutants of most concern are traffic-related fine airborne particulate matter and Nitrogen dioxide. A third AQMA is being considered for Tideford, again traffic related pollution. Air quality in the county is generally good.	+	+	0	+	+	+	Medium		Air quality monitoring programmes. Concentration on AQMA improvements. Consideration of air quality effects through project level EIA of qualifying schemes. Ensure LTP proposals do not create new areas of exceedence.	Locating employment in areas with existing public transport infrastructure and encouraging active travel through implementation of travel plans will help reduce congestion and air pollutants from private vehicles.
N1: Reduce the noise impact of the transport system.	Cornwall Quality of Life Survey indicated that 18.3% of respondents, in their opinion, thought vehicle noise was a 'very big' or 'fairly big' problem when considering contributors to neighbourhood and environmental problems. Over 40% felt it was 'not a very big problem' and fewer than 40% felt it was 'not a problem at all'.	+	+	0	+	+	+	Medium		Noise monitoring programmes. Consideration of noise effects through project level EIA of qualifying schemes	Locating employment in areas with existing public transport infrastructure and encouraging active travel through implementation of travel plans will help reduce congestion and traffic noise from private vehicles.

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		Local	County wide	Trans-boundary	Short	Medium	Long				
CC1: Mitigation: reduce the contribution of transportation to greenhouse gas emissions.	8.16 tonnes of CO ₂ were released per capita in Cornwall in 2006. Lowest per capita emissions were found in the Isles of Scilly, with 5.73 tonnes. Road transport accounted for 29% of CO ₂ emissions in Cornwall for 2006. Two thirds of Cornish road transport carbon emissions are from private cars.	+	+	0	+	+	+	Medium		Air quality monitoring programmes. Concentration on AQMA improvements. Consideration of air quality effects through project level EIA of qualifying schemes.	Locating employment in areas with existing public transport infrastructure and encouraging active travel through implementation of travel plans will help reduce congestion and air pollutants from private vehicles.
CC2: Adaptation: minimise the vulnerability of the transport infrastructure to climate change.	DEFRA and the Environment Agency have identified which coastal sites and features are most at risk within the next 20 years of sea level change. Mullion Harbour and Godrevy feature in the high risk category and Boscastle Harbour falls into the medium risk category. Over the next 100 years around 15-30 km of additional roads in Cornwall are liable to become inundated by extreme tide levels. 3-5km of these are A roads, 2-4km are B roads, 5-9km C roads and 6-11km are unclassified roads.	0	0	0	0	0	0	Medium			These policies are not likely to have a significant effect on this objective.
LTCH1: Create places, spaces and buildings that enhance local distinctiveness, appearance and sense of place.	12,490 Listed Buildings, 1,872 Scheduled Monuments, 145 Conservation Areas (4070 ha) 36 Registered Parks and Gardens (3720 ha), 2 Registered Battle Fields (115	+	+	0	+	+	+	Low	Helping to preserve the landscapes/townscapes in the long term will also benefit biodiversity.	Landscape and cultural heritage assessments on proposed developments.	Reducing the need to travel and encouraging sustainable modes of transport through the widespread use of travel plans could potentially improve landscapes and townscape with a reduction in traffic flows.
LTCH2: Protect and enhance buildings,		+	+	0	+	+	+	Low		Consideration of landscape and	

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V. Development proposals in locations where traffic conditions have been identified as a matter of concern by the local highway authority.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects Identify other receptors with interrelated effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long				
sites, structures and heritage assets that contribute to the quality of countryside, townscape and the public realm.	ha), Cornish Mining World Heritage Site 18, 222 ha; 5.5% of Cornwall.									cultural heritage effects through project level EIA of qualifying schemes.	
LTCH3: Protect and enhance landscape character and local distinctiveness including Areas of Outstanding Natural Beauty and the World Heritage Site.		+	+	0	+	+	+	Low			
HSC1: Reduce the number of people killed and seriously injured in road collisions.	KSI total was 15% below the national baseline in 2006. Targets suggest a reduction of 30% by 2010/11 in KSI incidents.	0	0	0	0	0	0	Medium			These policies are not likely to have a significant effect on this objective.
HSC2: Reduce levels crime and fear of crime.	Generally centred on speeding offences, drink driving offences and mobile phone use. 2005 there were 11,964 speeding offences compared to 6,289 in 2008.	0	0	0	0	0	0	Medium			These policies are not likely to have a significant effect on this objective.
HSC3: Encourage healthier lifestyles particularly by encouraging more people to walk and cycle.	The health of people in Cornwall is generally better than the England average. Both male and female life expectancies are higher than the England average. Over the last ten years early death rates from heart disease and stroke as well as early death rates from cancer have been declining and remain below the England average.	++	++	0	++	++	++	Medium	There will be a reduction in motorised travel helping to improve air quality, noise levels, landscapes and biodiversity.		Travel plans for new developments and businesses should encourage active travel in the first instance.
A1: Improve accessibility of jobs,		0	0	0	0	0	0	Medium			These policies are not likely to have a significant effect on this objective.

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		Local	County wide	Trans-boundary	Short	Medium	Long				
shops and other amenities for rural communities.											
A2: Reduce the community severance effects of infrastructure.		+/-	+/-	0	0	+/-	+/-	Medium		Consideration of socio-economic effects, including effects of deprivation and access, through project level EIA of qualifying schemes.	Ensuring new employment development is located in areas with good existing transport services could see employment activities ignoring already deprived areas due to lack or inefficiency of existing transport systems. Some areas could become even more isolated. Ensuring new employment centres are developed with good transport services will support this objective.
A3: Provide an inclusive transport network that meets the needs of society and specific groups such as the disabled and elderly.		+/-	+/-	0	0	+/-	+/-	Medium			These policies are not likely to have a significant effect on this objective.
A4: Improve sustainable access to the countryside		0	0	0	0	0	0	Medium			These policies are not likely to have a significant effect on this objective.
E1: Invest in transport systems that will create a strong and sustainable economy by addressing economic barriers to growth, in particular access and congestion.		++	++	0	0	++	++	Medium	Improving economic growth through the above policies is likely to improve personal wellbeing with more people having access to work and perhaps earning more money.		Improving access to employment via current public transport routes, developing a more efficient service and locating new developments close to existing services, will support economic growth and expansion.

Summary

Main Effects of the Plan Objectives and Policies

The Policies under Objective 12 of the LTP could potentially have some short-term negative effects 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 is likely to directly support HSC3 and E1.

Ensuring new employment centres are located in areas with good public transport services and walking and cycling infrastructure will potentially reduce the amount of land take needed for transport infrastructure in the long-term. This could also potentially mean the need for less construction in the future requiring the use of fewer minerals and reducing construction waste.

Creating new employment development focusing around areas with existing good public transport services and walking and cycling infrastructure could have a negative effect on biodiversity in the short-term. However, promoting development in areas with urban characteristics could help to safeguard biodiversity in the long term. There is also the potential for improvements in air quality and noise levels through promoting active travel through compulsory travel plans.

Encouraging sustainable modes of transport through the widespread use of travel plans could potentially improve landscapes and townscape with a reduction in traffic flows. If travel plans for new developments and businesses directly encourage and provide advice on active travel this policy should directly support SEA objective HSC3.

Ensuring new employment development is located in areas with good existing transport services could see employment activities ignoring already deprived areas due to lack or inefficiency of existing transport systems. Some areas could become even more isolated. This is the reason for classifying SEA objectives A2 and A3 as uncertain.

Improving access to employment via current public transport routes, developing a more efficient service and locating new developments close to existing services, will support economic growth and expansion.

Cumulative Effects of the Plan Objectives and Policies

If more mineral extraction is required there are likely to be negative effects to visual landscapes and biodiversity. An increase in construction and demolition waste being sent to landfill will have negative environmental effects.

Helping to preserve the landscapes/townscapes in the long term will benefit biodiversity.

There will be a reduction in motorised travel helping to improve air quality, noise levels, landscapes and biodiversity.

Improving economic growth through the above policies is likely to improve personal wellbeing with more people having access to work and perhaps earning more money.

Potential Mitigation and Recommendations for the LTP

Mitigation and recommendations are as follows;

- Promote opportunities for improving habitat connectivity and ecological coherence as part of development approval process.
- Safeguarding good quality agricultural land.
- Encourage the reuse of onsite materials and the use of recycled materials in construction.
- Set targets for the use of recycled materials in infrastructure construction.
- Recycling initiatives and the use of construction waste materials for landscaping.
- Air quality monitoring programmes. Concentration on AQMA improvements.
- Noise monitoring.
- Landscape and cultural heritage assessments on proposed developments.
- Design guides should promote sustainable transport modes where possible.
- Consider whether there are any specific elements relating to the environment that could be worked into rural roads protocol.
- Consideration of environmental effects through project level EIA of qualifying schemes.
- Ensure LTP proposals do not create new areas of exceedence.
- Target user groups at greatest risk of being in a road traffic collision.

LTP Goal: Respect and Enhance the Environment

Objective 8: Make the most of opportunities to protect and enhance the environment

Policies as of 8/10/2010:

Apply best practice 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.

Apply Cornwall design guidelines and the Cornwall Landscape Character Best Practice Guide for new, widened and reconstructed roads.

Cornwall Council's Design Guidelines will be applied to urban arterial roads and village main streets. We will develop additional guidelines for rural arterial roads and for urban, rural and village collector roads.

Use a rural roads protocol in designing and delivering our roads schemes.

Design street lighting so that it is appropriate to its environment and reduces light pollution beyond the area that needs lighting.

Possible policy on turning off street lighting.

Undertake careful route planning in order to seek to avoid damage to the environment where possible, and mitigate or even enhance otherwise (in line with PPS9 guidance)

Where appropriate, for reasons that may include preservation of built or natural heritage features, we will consider waiving the requirement for land dedication from adjacent sites for road corridor expansion, or reducing the amount of land to be dedicated, in accordance with policies in the Local Development Framework.

Protect and enhance urban green areas within transportation corridors.

Incorporate best practice for sustainable surface water management design into transportation projects, where drainage is an issue.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects Identify other receptors with interrelated effects	Potential mitigation & enhancement	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long				
WSM1: Minimise the impact of the transport network on the quality and quantity of the county's water resources.	19 surface sources operated by South West Water. Total of 79,813 million litres. In the South West river basin district 23 per cent of waters meet good ecological status and 41 per cent do not meet good status (449 water bodies). The majority of water bodies that fail to meet good status fail because of the phosphorus, fish and diatom elements of classification. Surface runoff from transport routes could be effecting water quality.	+	+	0	+	+	+	Medium	Rural roads protocol will potentially assist in protecting against contamination by reducing traffic speed and therefore reducing the number of collisions.	Monitoring of water quality for schemes. Active promotion of sustainable drainage for schemes. Consideration of water quality effects through project level EIA of qualifying schemes.	Incorporating best practice for sustainable surface water management design in transport projects will help to control runoff and potential contamination of water bodies. This should assist in achieving good ecological status therefore enhancing biodiversity in water bodies.
WSM2: Reduce contamination and safeguard soil structure quality and quantity from transport systems and infrastructure.	Shillet is most common soil type. Tend to be low in phosphates with impeded drainage, are difficult to manage in winter, but are highly productive if drained properly. 0.1% of agricultural land is Grade 1, 8% is Grade 2 and 61.2% is Grade 3a and	+	+	0	+	+	+	Low	Rural roads protocol will potentially assist in protecting against contamination by reducing traffic speed and therefore reducing the number of collisions.	Safeguard good quality agricultural land Consider whether there are any specific elements relating to landuse/soil that could be worked into rural roads protocol. Consideration of land	Careful route planning will potentially help protect high quality agricultural land from development of transport schemes or severance effects.

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	3b, the remainder is urban or poor. Contaminated land has largely arisen due to historical industrial activity, mainly mining.									take, land use, severance, soil quality and contamination effects through project level EIA of qualifying schemes.	
WSM3: Minimise the impact of transport on mineral resources.	Minerals currently exploited in the county are granite for aggregates and building stones, china clay, slate and sandstone. 2009 production of primary aggregates in Cornwall was around 1.43 million tonnes; this is principally from 12 quarries throughout the County. China clay production contributes around £100 million to the UK balance of payments and makes a significant contribution to Cornwall's local economy each year. 2009 production of china clay was estimated to be in the region of 1.6 million tonnes.	0	0	0	0	0	0	0	0	Protection of designated sites of mineral resource.	These policies are not likely to have a significant effect on this objective.
WSM4: Minimise the waste produced by transport systems and infrastructure.	Construction and demolition waste is the largest waste stream, 452,000 tonnes produced in 2008/09, 39% sent to landfill. Municipal	0	0	0	0	0	0	0	0	0	These policies are not likely to have a significant effect on this objective.

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	waste arising 314,311. 63% sent to landfill. Need to reduce landfilling. Planning appeal logged for 240,000 tonne capacity energy from waste plant.										
BI1: Conservation and enhancement of protected habitats and species and making a positive contribution to the local BAP.	41 BAP habitats found in Cornwall covering some 19652 ha overall. There are currently 496 County Wildlife Sites in Cornwall covering nearly 33,000 hectares or 10% of the county's land area.	++	++	0	++	++	++	Medium	.	Applying best practice to all engineering and design projects, however small, will help to protect and enhance the existing environment.	Landscape and ecological design should assist with improving integration of new infrastructure and improvements to integration of existing infrastructure.
BI2: Improvement of ecological coherence, habitat connectivity and climate change resilience and adaptation.	166 Sites of Special Scientific Interest. 17 SACs, 3 Inland Marine cSACs and 16 SPAs.	++	++	0	++	++	++	Medium		Consideration of ecology and biodiversity effects through project level EIA of qualifying schemes.	Protecting and enhancing green areas within transportation corridors should help with improving ecological coherence and habitat connectivity. Route planning should help avoid adverse effects and identify opportunities for improving habitat connectivity and ecological coherence.
AQ1: Reduce social, economic and environmental costs of transport on air quality.	2 AQMAs, Bodmin and then Camborne, Pool and Redruth grouped together. Pollutants of most concern are traffic-related fine airborne particulate matter and Nitrogen dioxide. A third AQMA is being considered for Tideford, again traffic related pollution. Air quality in the county is generally good..	+	+	0	+	+	+	Medium		Air quality monitoring programmes. Concentration on AQMA improvements. Consideration of air quality effects through project level EIA of qualifying schemes. Ensure LTP proposals do not create new areas of exceedence	Applying best practice techniques will mean any air quality impacts from development will have to be assessed and mitigation plans developed. Design guides may lead to improvements in traffic flow resulting in improved air quality.
N1: Reduce the noise	Cornwall Quality of Life	+	+	0	+	+	+	Medium	Biodiversity will benefit from	Noise monitoring.	Applying best practice techniques will mean any noise

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impact of the transport system.	Survey indicated that 18.3% of respondents, in their opinion, thought vehicle noise was a 'very big' or 'fairly big' problem when considering contributors to neighbourhood and environmental problems. Over 40% felt it was 'not a very big problem' and fewer than 40% felt it was 'not a problem at all'.								a reduction in noise pollution. A reduction in noise levels will improve tranquillity and positively contribute to the landscape and historic environment setting. This in turn could result in improvements in personal wellbeing and mental health.	Consideration of noise effects through project level EIA of qualifying schemes.	impacts from development will be assessed and mitigation plans developed; this should contribute to a reduction in noise nuisance resulting from transport infrastructure construction and maintenance. Design guidelines and rural roads protocol should assist in reducing negative noise effects during operation of transport.
CC1: Mitigation: reduce the contribution of transportation to greenhouse gas emissions.	8.16 tonnes of CO ₂ were released per capita in Cornwall in 2006. Lowest per capita emissions were found in the Isles of Scilly, with 5.73 tonnes. Road transport accounted for 29% of CO ₂ emissions in Cornwall for 2006. Two thirds of Cornish road transport carbon emissions are from private cars.	0	0	0	0	0	0	Medium		Air quality monitoring programmes. Electricity demand for street lighting. Applying best practice techniques will mean any greenhouse gas impacts from development will have to be assessed and mitigation plans developed. Consideration of air quality effects through project level EIA of qualifying schemes.	None of the above policies seem to strongly support this objective. Although there is potential for a contribution from the Rural Roads Protocol, road design guides and lighting policies if implemented to reduce traffic volume/improve traffic flow at lower speeds or reduce power demand for lighting.
CC2: Adaptation: minimise the	DEFRA and the Environment Agency have	+	+	0	0	+	+	Medium	Potential adverse effect on biodiversity and soil through	Active promotion of sustainable drainage	Incorporating best practice for sustainable surface water management design and drainage in transport projects will

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vulnerability of the transport infrastructure to climate change.	identified which coastal sites and features are most at risk within the next 20 years of sea level change. Mullion Harbour and Godrevy feature in the high risk category and Boscastle Harbour falls into the medium risk category. Over the next 100 years around 15-30 km of additional roads in Cornwall are liable to become inundated by extreme tide levels. 3-5km of these are A roads, 2-4km are B roads, 5-9km C roads and 6-11km are unclassified roads.								land take if build solutions are required; conversely there is opportunity to provide habitat linkages through landscape design of new build and any improvement to existing infrastructure. .	for schemes.	help to control runoff and flood waters. Careful route planning would also help to reduce the adverse effects of climate change.
LTCH1: Create places, spaces and buildings that enhance local distinctiveness, appearance and sense of place.	12,490 Listed Buildings, 1,872 Scheduled Monuments, 145 Conservation Areas (4070 ha)	++	++	0	++	++	++	Medium	Protected landscapes will benefit biodiversity, water quality and soils. It will also improve personal sense of wellbeing and mental health. It could also encourage active travel by enhancing existing landscapes.	Landscape and cultural heritage assessments on proposed developments. Mitigation plans. Consideration of landscape and cultural heritage effects through project level EIA of qualifying schemes.	Best practice techniques should ensure that developments are in keeping with local landscape characteristics and that protected sites and buildings are considered. Improving and enhancing the natural environment strengthens place distinctiveness and the quality of the countryside. Considering the Cornwall Landscape Character Best Practice Guide for new and reconstructed routes will support the three SEA objectives. Careful route planning will also reduce adverse landscape effects. Protecting and enhancing urban green areas within route corridors will help to enhance landscape character.
LTCH2: Protect and enhance buildings, sites, structures and heritage assets that contribute to the quality of countryside, townscape and the public realm.	36 Registered Parks and Gardens (3720 ha), 2 Registered Battle Fields (115 ha), Cornish Mining World Heritage Site 18, 222 ha; 5. 5% of Cornwall.	++	++	0	++	++	++	Medium			
LTCH3: Protect and		++	++	0	++	++	++	Medium			

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enhance landscape character and local distinctiveness including Areas of Outstanding Natural Beauty and the World Heritage Site.											
HSC1: Reduce the number of people killed and seriously injured in road collisions.	KSI total was 15% below the national baseline in 2006. Targets suggest a reduction of 30% by 2010/11 in KSI incidents.	+	+	0	+	+	+	Medium	0	Target user groups at greatest risk of being in a road traffic collision.	Using rural roads protocol and Council design guidance, road schemes will potentially help reduce potential injuries and deaths. For example reducing traffic speed
HSC2: Reduce levels crime and fear of crime.	Generally centred on speeding offences, drink driving offences and mobile phone use. 2005 there were 11,964 speeding offences compared to 6,289 in 2008.	0	0	0	0	0	0	Medium	0	0	These policies are not likely to have a significant effect on this objective.
HSC3: Encourage healthier lifestyles particularly by encouraging more people to walk and cycle.	The health of people in Cornwall is generally better than the England average. Both male and female life expectancies are higher than the England average. Over the last ten years early death rates from heart disease and stroke as well as early death rates from cancer have been declining and remain below the England average.	+	+	0	+	+	+	Medium	0	Green travel plans. Rural roads protocol and design guidance should include provisions for cycling and walking access	There are strong links between good natural environment, personal health and wellbeing. Improved natural environments will also encourage more active travel..
A1: Improve		0	0	0	0	0	0	Medium	0	0	These policies are not likely to have a significant effect on

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		Local	County wide	Trans-boundary	Short	Medium	Long				
	accessibility of jobs, shops and other amenities for rural communities.										this objective.
	A2: Reduce the community severance effects of infrastructure.	+	+	0	+	+	+	Medium	Reducing severance effects will help economic growth.	Consideration of socio-economic effects, including effects of deprivation and access, through project level EIA of qualifying schemes.	Through careful route planning and design, severance issues could potentially be reduced.
	A3: Provide an inclusive transport network that meets the needs of society and specific groups such as the disabled and elderly.	0	0	0	0	0	0	Medium	0	0	These policies are not likely to have a significant effect on this objective.
	A4: Improve sustainable access to the countryside	+	+	0	+	++	++	Medium	0	Rural roads protocol should promote sustainable modes and encourage active travel. Design guides should promote sustainable transport modes where possible.	All of the above policies will potentially contribute to provision of sustainable access to the countryside.

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		Local	County wide	Trans-boundary	Short	Medium	Long		Identify other receptors with interrelated effects		
E1: Invest in transport systems that will create a strong and sustainable economy by addressing economic barriers to growth, in particular access and congestion.		0	+	0	0	+	+	Low	0	Design guidance should focus on reducing congestion problems.	Assuming the schemes implied by the policies address the access and congestion as barriers to growth, all of the above policies should indirectly support a strong and sustainable economy.

Summary

Main Effects of the Plan Objectives and Polices

The policies under Objective 8 of the LTP either 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.

Incorporating best practice into sustainable surface water management design in transport projects directly supports objective WSM1 by helping to control runoff and potential contamination of water bodies which will protect valuable resources and also help to protect water body ecosystems. Another valuable resource, good quality soil, can be safeguarded through careful route planning and will help to ensure that severance issues are kept to a minimum. This directly supports objective WSM2.

The policy positively supports the biodiversity objectives. The Landscape and ecological design should assist with improving integration of new infrastructure and improvements to integration of existing infrastructure. Helping to protect and enhance green areas within transportation corridors should help with improving ecological coherence and habitat connectivity, and careful route planning can ensure that designated ecological sites and areas of scientific interest are avoided.

Applying best practice techniques, design guidance and rural road protocol to the development of transport infrastructure will mean any air quality and noise impacts will have to be assessed and mitigation plans developed.

None of the above policies seem to strongly support objective CC1, although there is potential for a contribution from the Rural Roads Protocol, road design guides and lighting policies if implemented to reduce traffic volume/improve traffic flow at lower speeds or reduce power demand for lighting. CC2, however, will be directly supported by sustainable water management design and drainage and careful route planning.

Best practice techniques should ensure that developments are in keeping with local landscape characteristics and that protected sites and buildings are considered in transport infrastructure development. Using the Cornwall Landscape Character Best Practice Guide for new and reconstructed routes will help to enhancing and improve the natural environment, with the opportunity to strengthen place distinctiveness and the quality of the County's countryside. There are strong links between good natural environment, personal health and wellbeing and improved natural environments will also encourage more active travel. This will support objective HSC3.

By using rural roads protocol and design guidance, road schemes will potentially help reduce potential injuries and deaths. For example reducing traffic speeds.

All of the above policies will potentially contribute to provision of sustainable access to the countryside and limit the impacts upon it. Assuming the schemes implied by the policies address the access and congestion as barriers to growth, all of the above policies should indirectly support a strong and sustainable economy.

Cumulative Effects of the Plan Objectives and Policies

A number of cumulative effects should develop through implementation of the above policies. Using rural roads protocol will potentially assist in protecting against contamination by reducing traffic speed and therefore will also help to reduce the number of collisions on the County's roads. This will make the roads safer.

Biodiversity will benefit from a reduction in noise pollution which will also improve tranquillity and positively contribute to the landscape and historic environment setting. This in turn could result in improvements in personal wellbeing and mental health. However, there is a potential adverse effect on biodiversity and soil through land take if build solutions are required; conversely there is opportunity to provide habitat linkages through landscape design of new build and any improvement to existing infrastructure.

Protected landscapes will benefit biodiversity, water quality and soils. It will also improve personal sense of wellbeing and mental health and encourage active travel by providing more attractive landscapes. It could also encourage active travel by enhancing existing landscapes.

The potential for solving and avoiding severance issues could also help the economy to grow.

Potential Mitigation and Recommendations for the LTP

The policy tends to positively support the SEA objectives, but there are still some recommendations and mitigation methods which could be implemented to enhance the effectiveness of the above policies.

Monitoring of water quality within or near transport infrastructure development/operational schemes would be beneficial to ensure any negative effects arising can be addressed quickly. This also applies to air quality and noise levels. It is recommended that existing AQMAs are given particular consideration and that any greenhouse gases being produced from developments are assessed and mitigation plans put in place.

Active promotion of sustainable drainage for schemes and the safeguarding of good quality agricultural land should be enforced, along with the protection of designated mineral resources, landscapes and ecological habitats.

Applying best practice to all engineering and design projects, however small, will help to protect and enhance the existing environment. The findings of landscape and cultural heritage assessments should be integrated into design and green travel plans should be introduced for operational purposes. There should be active support for sustainable transport modes where possible within design guidance and also a focus of reducing any existing congestion problems.

Consider whether there are any specific elements relating to the environment that could be worked into rural roads protocol.

Sustainable surface water management design should be included, or at least considered in all transport infrastructure developments and not just where drainage is an issue.

Consideration of environmental effects through project level EIA of qualifying schemes.

Ensure LTP proposals do not create new areas of exceedence.

Target user groups at greatest risk of being in a road traffic collision.

Objective 9: Minimise the use of natural resources and minimise waste.

Policies as of 8/10/2010:

Give priority to the management of existing infrastructure before adding new infrastructure.

Use recycled materials in the construction of transport schemes wherever feasible, therefore reducing the need to quarry new materials.

Where new aggregate is required, we will reduce the distances the minerals are transported by using local materials wherever possible.

Better utilise existing infrastructure to optimise the efficient operation of highway corridors and junctions, with the goal of maintaining a ratio of volume to capacity for mixed traffic lanes at all intersections that is no greater than 0.9 except in the main urban areas where a ratio of 1.0 will be acceptable.

Consider reducing parking requirements for new mixed-use developments where parking facilities can be shared between employment and retail components, or where facilities can be shared between residential and employment or retail components while preserving adequate, safe, secure and convenient parking for residents.

Consider reducing parking requirements for new developments where bus service is adjacent to or can be incorporated into a development, or where walking and/or cycling have high modal shares, provided that the applicant demonstrates that reduced parking standards will meet expected parking demands and will neither aggravate parking supply in the area nor lead to over spill parking in adjacent areas.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long		Identify other receptors with interrelated effects		
WSM1: Minimise the impact of the transport network on the quality and quantity of the county's water resources.	19 surface sources operated by South West Water. Total of 79,813 million litres. In the South West river basin district 23 per cent of waters meet good ecological status and 41 per cent do not meet good status (449 water bodies). The majority of water bodies that fail to meet good status fail because of the phosphorus, fish and diatom elements of classification. Surface runoff from transport routes could be affecting water quality.	0	0	0	0	0	0	Medium	0	0	These policies are not likely to have a significant effect on this objective.
WSM2: Reduce contamination and safeguard soil structure quality and quantity from transport systems and infrastructure.	Shillet is most common soil type. Tend to be low in phosphates with impeded drainage, are difficult to manage in winter, but are highly productive if drained properly. 0.1% of agricultural land is Grade 1, 8% is Grade 2 and 61.2% is Grade 3a and 3b, the remainder is urban or poor. Contaminated land has largely arisen due to historical industrial activity, mainly mining.	0	0	0	0	0	0	Medium	0	0	These policies are not likely to have a significant effect on this objective.

WSM3: Minimise the impact of transport on mineral resources.	Minerals currently exploited in the county are granite for aggregates and building stones, china clay, slate and sandstone. 2009 production of primary aggregates in Cornwall was around 1.43 million tonnes; this is principally from 12 quarries throughout the County. China clay production contributes around £100 million to the UK balance of payments and makes a significant contribution to Cornwall's local economy each year. 2009 production of china clay was estimated to be in the region of 1.6 million tonnes.	++	++	0	++	++	++	High	0	Promotion of on-site reuse of materials in construction, promotion of targets for sourcing of materials for construction. Consideration of waste generation and disposal through EIA of qualifying schemes.	By using more recycled materials for construction and reducing the amount of minerals being quarried resources will be protected. Reducing need for construction by managing new infrastructure instead of building new.
WSM4: Minimise the waste produced by transport systems and infrastructure.	Construction and demolition waste is the largest waste stream, 452,000 tonnes produced in 2008/09, 39% sent to landfill. Municipal waste arising 314,311. 63% sent to landfill. Need to reduce landfilling. Planning appeal logged for 240,000 tonne capacity energy from waste plant.	+	+	0	+	+	+	Medium	By reducing the amount of waste being sent to landfill the natural environment will benefit.	Recycling initiatives. Encouraging the use of site waste in road improvements or in landscaping schemes. Consideration of waste generation and disposal through EIA of qualifying schemes.	Reusing waste, especially demolition waste, produced during construction or management of transport infrastructure in road schemes will reduce construction and demolition waste throughout the County.
BI1: Conservation and enhancement of protected habitats and species and making a positive contribution to the local BAP.	41 BAP habitats found in Cornwall covering some 19652 ha overall. There are currently 496 County Wildlife Sites in Cornwall covering nearly 33,000 hectares or 10% of the county's land area. 166 Sites of Special Scientific Interest. 17 SACs, 3 Inland Marine cSACs and 16 SPAs.	+	+	0	+	+	+	Medium	Protecting the natural environment will help to safeguard the countryside and distinctive landscapes. Protecting the environment will enhance personal wellbeing and encourage to use active travel modes.	Mitigation hierarchy of avoidance, reduction and compensation. Protection of designated sites. Consideration of ecology and biodiversity effects through project level EIA of qualifying schemes.	Managing and maintaining existing infrastructure before building new roads will require less construction and land take.
BI2: Improvement of ecological coherence, habitat connectivity and climate change resilience and adaptation.		0	0	0	0	0	0	Medium	0	0	These policies are not likely to have a significant effect on this objective.
AQ1: Reduce social,	2 AQMAs, Bodmin and	+/-	+/-	0	0	+/-	+/-	Medium	Biodiversity, water resources and soil	Air quality	Reducing the number of parking spaces may increase the uptake

economic and environmental costs of transport on air quality.	then Camborne, Pool and Redruth grouped together. Pollutants of most concern are traffic-related fine airborne particulate matter and Nitrogen dioxide. A third AQMA is being considered for Tideford, again traffic related pollution. Air quality in the county is generally good..								quality will benefit from a reduction in air pollution.	<p>monitoring programmes. Concentration on AQMA improvements.</p> <p>Promote use of non-motorised transport alternatives.</p> <p>Consideration of air quality effects through project level EIA of qualifying schemes.</p> <p>Ensure LTP proposals do not create new areas of exceedence.</p>	of public transport options and so positively contribute to reducing the adverse effects of transport on air quality. This will need to be supported by provision of alternatives to the private motor car and may also require some replacement of buses and trains with lower-emission stock. Sourcing construction aggregates locally will help cut emissions. However, maintaining and managing existing routes may not reduce congestion enough to benefit air quality levels in problem areas. Especially existing AQMAs.
N1: Reduce the noise impact of the transport system.	Cornwall Quality of Life Survey indicated that 18.3% of respondents, in their opinion, thought vehicle noise was a 'very big' or 'fairly big' problem when considering contributors to neighbourhood and environmental problems. Over 40% felt it was 'not a very big problem' and fewer than 40% felt it was 'not a problem at all'.	-	+	0	0	+/-	+/-	Medium	0	<p>Explore options for noise management in management of existing infrastructure.</p> <p>Promote use of "quieter" transport alternatives, including non-motorised alternatives.</p> <p>Consideration of noise effects through project level EIA of qualifying schemes.</p>	Reducing the number of parking spaces may increase the uptake of public transport options – this may reduce private car noise sources, but could result in a slight local increase in HGV noise (from buses for example). Maintaining and managing existing routes is unlikely to reduce current noise problem areas, but it should not create any new ones.
CC1: Mitigation: reduce the contribution of transportation to greenhouse gas emissions.	8.16 tonnes of CO ₂ were released per capita in Cornwall in 2006. Lowest per capita emissions were found in the Isles of Scilly, with 5.73 tonnes. Road transport accounted for 29% of CO ₂ emissions in Cornwall for 2006. Two thirds of Cornish road transport carbon emissions are from private cars.	0	+	+	0	+	+	Medium	Reducing Carbon emissions is likely to coincide with general improvement to air quality. Biodiversity, water resources and soil quality will benefit from a reduction in air pollution.	<p>Air quality monitoring programmes. Concentration on AQMA improvements.</p> <p>Promote use of non-motorised transport alternatives.</p> <p>Consideration of air quality effects through project level EIA of qualifying schemes</p>	Reducing the number of parking spaces may increase the uptake of public transport options. This will need to be supported by provision of alternatives to the private motor car.

CC2: Adaptation: minimise the vulnerability of the transport infrastructure to climate change.	DEFRA and the Environment Agency have identified which coastal sites and features are most at risk within the next 20 years of sea level change. Mullion Harbour and Godrevy feature in the high risk category and Boscastle Harbour falls into the medium risk category. Over the next 100 years around 15-30 km of additional roads in Cornwall are liable to become inundated by extreme tide levels. 3-5km of these are A roads, 2-4km are B roads, 5-9km C roads and 6-11km are unclassified roads.	0	0	0	0	0	0	0	0	0	0	These policies are not likely to have a significant effect on this objective.
LTCH1: Create places, spaces and buildings that enhance local distinctiveness, appearance and sense of place.	12,490 Listed Buildings, 1,872 Scheduled Monuments, 145 Conservation Areas (4070 ha) 36 Registered Parks and Gardens (3720 ha), 2 Registered Battle Fields (115 ha), Cornish Mining World Heritage Site 18, 222 ha; 5. 5% of Cornwall.	+	+	0	+	+	+	Medium	Possibility of increasing pressure on existing vulnerable sites.	Landscape and cultural heritage assessments on proposed developments. Mitigation plans.	By maintaining existing routes negative landscape effects from new infrastructure will be reduced. It will help protect existing designated areas from future development. Reducing private motor car travel through a reduction in parking spaces will enhance distinctiveness and help to maintain existing cultural heritage. Avoidance of quarrying to supply aggregate will reduce the resultant additional landscape effect. Effects from existing infrastructure will remain.	
LTCH2: Protect and enhance buildings, sites, structures and heritage assets that contribute to the quality of countryside, townscape and the public realm.		+	+	0	+	+	+	Medium				Consideration of landscape, setting and vulnerability of adjacent sites in management of existing infrastructure. Promotion of good design in new infrastructure.
LTCH3: Protect and enhance landscape character and local distinctiveness including Areas of Outstanding Natural Beauty and the World Heritage Site.		+	+	0	+	+	+	Medium				Consideration of landscape and cultural heritage effects through project level EIA of qualifying schemes.
HSC1: Reduce the number of people killed and seriously injured in road collisions.	KSI total was 15% below the national baseline in 2006. Targets suggest a reduction of 30% by 2010/11 in KSI incidents.	+	+	0	0	+	+	Low	0	Provision of traffic free routes. Reduction in speed of motorised transport. Target user groups at greatest risk of being in a road traffic collision.	It is not clear whether this policy will have an effect on achieving the SEA objective. There is a possibility that a shift away from private motor car to other modes will improve the KSI statistics. But an increase in uptake of walking and cycling may result in a greater probability of collision.	
HSC2: Reduce levels	Generally centred on	0	0	0	0	0	0	0	0	0	These policies are not likely to have a significant effect on this	

crime and fear of crime.	speeding offences, drink driving offences and mobile phone use. 2005 there were 11,964 speeding offences compared to 6,289 in 2008.										objective.
HSC3: Encourage healthier lifestyles particularly by encouraging more people to walk and cycle.	The health of people in Cornwall is generally better than the England average. Both male and female life expectancies are higher than the England average. Over the last ten years early death rates from heart disease and stroke as well as early death rates from cancer have been declining and remain below the England average.	+	+	0	+	+	+	Low	Reduction in noise levels and poor air quality. Reduction in greenhouse gas emissions. Improved landscape through less traffic flows.	Green travel plans. Education in the health benefits of walking and cycling.	Reducing parking will encourage people to adopt active travel modes such as walking and cycling, improving personal health and wellbeing. Access to these alternatives will also require improvement.
A1: Improve accessibility of jobs, shops and other amenities for rural communities.		?	0	0	0	?	?	Low		Promotion and provision of alternatives to private motor car and/or motorised transport. Provision of public transport to rural areas. Ensure sufficient provision of disabled parking.	Maintaining existing routes is unlikely to improve accessibility in areas where this already an issue. Concentrating on existing routes will not necessarily improve sustainable access to the country side or address rural access issues. Reducing the number of parking spaces may increase the uptake of public transport options. This will need to be supported by provision of alternatives to the private motor car, which may indirectly benefit accessibility in some locations.
A2: Reduce the community severance effects of infrastructure.		0	0	0	0	0	0				
A3: Provide an inclusive transport network that meets the needs of society and specific groups such as the disabled and elderly.		-	-	0	-	-	-				
A4: Improve sustainable access to the countryside		-	-	0	-	-	-				
E1: Invest in transport systems that will create a strong and sustainable economy by addressing economic barriers to growth, in particular access and congestion.		0	?	0	0	?	?	Low		Promotion of local Construction and Demolition waste recycling initiatives to provide beneficial re-use of materials for construction purposes. (NB this should <u>not</u> imply diversion of resources from potential closed-loop systems to meet an aggregate supply gap, for example recycled glass as an	Assuming the schemes implied by the policies address the access and congestion as barriers to growth, all of the above policies should indirectly support a strong and sustainable economy. Management targets for existing infrastructure should help identify and address congestion 'hotspots'.

										aggregate substitute)	
										Promote use of rail as an alternative to road haulage.	

Summary

Main Effects of the Plan Objectives and Policies

The policies under Objective 9 of the LTP have positive and negative effects on the SEA objectives. There are also areas where it is not clear what effect the policies would have.

The above policy will support objective WSM3 by aiming to use more recycled materials for construction, which in turn would reduce the amount of minerals being quarried. There will also be less construction required by managing new infrastructure instead of building new. This will also help to reduce the amount of land take need for development potentially reducing the amount of areas of good quality soil need for infrastructure. Reusing waste, especially demolition waste, produced during construction or management of transport infrastructure in road schemes will reduce construction and demolition waste throughout the County.

Reducing the number of parking spaces may increase the uptake of public transport options and so positively contribute to reducing the adverse effects of transport on air quality. This will need to be supported by provision of alternatives to the private motor car and may also require some replacement of buses and trains with lower-emission stock. However, maintaining and managing existing routes may not reduce congestion enough to benefit air quality levels in problem areas, especially existing AQMAs. This has resulted in an uncertainty rating for objective AQ1.

Again, reducing the number of parking spaces may increase the uptake of public transport options, which may reduce private car noise sources, but could result in a slight local increase in HGV noise (from buses for example). This has resulted in a negative rating for objective N1 at a local spatial level. Maintaining and managing existing routes is unlikely to reduce current noise problem areas, but it should not create any new ones.

Reducing the number of parking spaces may increase the uptake of public transport options therefore reducing the use of the private motor car. This should support objective CC1 in reducing greenhouse gas emissions. This however, will need to be supported by provision of alternatives to the private motor car.

Maintaining existing routes should reduce negative landscape effects from new infrastructure supporting the landscape SEA objectives. It will help protect existing designated areas from future development and will reduce the amount of land being quarried for construction aggregates. However, effects from existing infrastructure will remain. Reducing private motor car travel through a reduction in parking spaces will enhance distinctiveness and help to maintain existing cultural heritage.

It is not clear whether these policies will have an effect on achieving the SEA objective HSC1. There is a possibility that a shift away from private motor car to other modes will improve the KSI statistics. But an increase in uptake of other modes may result in a greater probability of collision.

Reducing parking may encourage people to adopt active travel modes such as walking and cycling; improving personal health and wellbeing, but access to these alternatives will also require improvement. The Policies as stated (e.g. maintaining existing routes/reduced parking) are unlikely to improve accessibility to already isolated areas and will not make travel easier for the elderly or disabled therefore policy does not support SEA objective A3. Concentrating on managing existing routes is unlikely to improve sustainable access to the country side therefore policy does not support SEA objective A4.

Reducing the number of parking spaces may increase the uptake of public transport options, but this will need to be supported by provision of alternatives to the private motor car, which may indirectly benefit accessibility in some locations.

Assuming the schemes implied by the policies address the access and congestion as barriers to economic growth, all of the above policies should indirectly support a strong and sustainable economy.

Cumulative Effects of the Plan Objectives and Policies

By maintaining and managing existing routes rather than building new infrastructure will resulting less construction waste being sent to landfill. This will have environmental benefits. However, maintaining existing routes could put extra pressure on existing vulnerable sites.

Protecting the natural environment will help to safeguard the countryside and distinctive landscapes, will enhance personal wellbeing and encourage people to use active travel modes.

Biodiversity, water resources and soil quality will benefit from a reduction in air pollution and reducing Carbon emissions is likely to coincide with general improvement to air quality.

A reduction in noise levels from private motor cars will improve tranquillity and place distinctiveness.

Potential Mitigation and Recommendations for the LTP

There are various suggestions and mitigation measures which could enhance the effectiveness of these policies.

- Promoting the on-site reuse of materials in construction and providing targets for developers to meet in the use of recycled materials would strengthen policy and further help to protect the environment, as would further advice on local construction and demolition recycling initiatives and where materials can be sourced for use in construction would also be beneficial. Ground site waste could also be implemented into landscape improvement schemes helping with screening or environment enhancement.
 - Implementation of the mitigation hierarchy of avoidance, reduction and compensation for development construction will ensure best practice and environmental protection.
 - Air quality monitoring programmes and development targets focusing on improving air quality within existing AQMAs could help with addressing poor air quality.
 - Exploring the use of noise management in management of existing infrastructure and the promotion of 'quieter' transport alternatives, including non- motorised travel should also be considered.
 - Landscape and cultural heritage assessments on proposed developments should be integrated into the design process and mitigation plans implemented.
 - Consideration of landscape, setting and vulnerability of adjacent sites in management of existing infrastructure and a reduction in speed from motorised transport will help to enhance existing landscapes and the sense of tranquillity
 - Green travel plans should be implemented and education in the health benefits of walking and cycling promoted where possible.
 - Where possible, rail as an alternative to road haulage should be promoted.
 - Consider whether there are any specific elements relating to the environment that could be worked into rural roads protocol.
 - Consideration of environmental effects through project level EIA of qualifying schemes.
 - Ensure LTP proposals do not create new areas of exceedence.
 - Target user groups at greatest risk of being in a road traffic collision.
 - Provision of public transport to rural areas.
-
- Ensure sufficient provision of disabled parking.

Objective 9 refers to minimising the use of natural resources, but the policy only refers to minerals. It is recommended that policy be introduced to help reduce the amount of soil and water used in transport infrastructure and maintenance.

Policy states: 'Consider reducing parking requirements for new mixed-use developments where parking facilities can be shared between employment and retail components, or where facilities can be shared between residential and employment or retail components while preserving adequate, safe, secure and convenient parking for residents. Consider reducing parking requirements for new developments where bus service is adjacent to or can be incorporated into a development, or where walking and/or cycling have high modal shares, provided that the applicant demonstrates that reduced parking standards will meet expected parking demands and will neither aggravate parking supply in the area nor lead to over spill parking in adjacent areas.'

Is policy actually to reduce parking demand by encouraging a move away from the private motor car? If so, perhaps a policy should be included to promote and integrate sustainable modes into new mixed use developments with a car parking space target.

Objective 10: Provide sustainable access to Cornwall's environment.

Policies as of 8/10/2010:

Through consultation with our partners and the recommendations of the Cornwall Access Strategy and the Green Infrastructure Plan, we will identify routes suitable for upgrading to multi-use routes and develop an action plan to deliver this network over the next 20 years.

Possible policy on maintenance of new and existing multi-use trails.

Require all new visitor attractions which exceed the thresholds set out in the travel plan advice for developers to have a travel plan.

Support the work of Devon and Cornwall Rail Partnership in promoting travel to and within Cornwall by rail in order to reduce the number of visitor trips made by road.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long		Identify other receptors with interrelated effects		
WSM1: Minimise the impact of the transport network on the quality and quantity of the county's water resources.	19 surface sources operated by South West Water. Total of 79,813 million litres. In the South West river basin district 23 per cent of waters meet good ecological status and 41 per cent do not meet good status (449 water bodies). The majority of water bodies that fail to meet good status fail because of the phosphorus, fish and diatom elements of classification. Surface runoff from transport routes could be affecting water quality.	-	+	0	-	+	+	Low	0	Active promotion of sustainable drainage for schemes. Consideration of water quality effects through project level EIA of qualifying schemes.	Implementing suggestions in the Green Infrastructure Plan, Cornwall Access Strategy and compulsory travel plans will help reduce the impact of transport on natural resources in the long term. However the upgrade of existing routes to multi-use routes will require County wide construction improvements. The negative effects associated with construction must be considered in the action plan to deliver these improvements.
WSM2: Reduce contamination and safeguard soil structure quality and quantity from transport systems and infrastructure.	Shillet is most common soil type. Tend to be low in phosphates with impeded drainage, are difficult to manage in winter, but are highly productive if drained properly. 0.1% of agricultural land is Grade 1, 8% is Grade 2 and 61.2% is Grade 3a and 3b, the remainder is urban or poor. Contaminated land has largely arisen due to historical industrial activity, mainly mining.	-	+	0	-	+	+	Low	0	Promotion of design guide and good practice to minimise loss of good quality agricultural land. Consideration of land take, land use, severance, soil quality and contamination effects through project level EIA of qualifying schemes.	Implementing suggestions in the Green Infrastructure Plan, Cornwall Access Strategy and compulsory travel plans should help reduce the contamination effects and demands of transport on natural resources in the long term. However the upgrade of existing routes to multi-use routes will require County wide construction improvements potentially resulting in loss of good quality agricultural land. The negative effects associated with soil contamination and construction must be considered in the development proposals to deliver these improvements.

<p>WSM3: Minimise the impact of transport on mineral resources.</p>	<p>Minerals currently exploited in the county are granite for aggregates and building stones, china clay, slate and sandstone. 2009 production of primary aggregates in Cornwall was around 1.43 million tonnes; this is principally from 12 quarries throughout the County. China clay production contributes around £100 million to the UK balance of payments and makes a significant contribution to Cornwall's local economy each year. 2009 production of china clay was estimated to be in the region of 1.6 million tonnes.</p>	-	-	-	-	+	+	Low	<p>Any policies requiring construction may result in increased materials demand which may in turn increase need for quarried materials – this will have an effect on land take, biodiversity and landscape wherever this material is extracted. There may also be affects on the historic environment setting.</p>	<p>Promotion of on-site reuse of materials in construction, promotion of targets for sourcing of materials for construction.</p> <p>Consideration of waste generation and disposal though EIA of qualifying schemes.</p>	<p>Implementing suggestions in the Green Infrastructure Plan, Cornwall Access Strategy and compulsory travel plans will help reduce the impact of transport on natural resources. However the upgrade of existing routes to multi-use routes will require County wide construction improvements having a potential negative effect on mineral resources in the short term for use in aggregates and an increase in extraction demand.</p> <p>In the longer term the policies are likely to support the objective by indirectly reducing materials demand for new road construction.</p>
<p>WSM4: Minimise the waste produced by transport systems and infrastructure.</p>	<p>Construction and demolition waste is the largest waste stream, 452,000 tonnes produced in 2008/09, 39% sent to landfill. Municipal waste arising 314,311. 63% sent to landfill. Need to reduce landfilling. Planning appeal logged for 240,000 tonne capacity energy from waste plant.</p>	-	-	-	-	+	+	Low	<p>Any policies requiring construction may result in the generation of construction waste. If unmanaged, this could result in inert material being disposed of in landfill rather than finding a beneficial use.</p>	<p>Promotion of on-site reuse of materials in construction, promotion of targets for sourcing of materials for construction.</p> <p>Recycling initiatives in operation to maximise amount of commercial waste being recycled.</p> <p>Green travel plans. Car sharing initiatives.</p> <p>Consideration of waste generation and disposal though EIA of qualifying schemes.</p>	<p>Implementing suggestions in the Green Infrastructure Plan and reusing demolition waste from transport infrastructure in new projects will help reduce waste levels.</p> <p>However the upgrade of existing routes to multi-use routes will require County wide construction improvements having a potential negative effect on construction waste generation in the short term.</p> <p>In the longer term the policies are likely to support the objective by indirectly reducing waste generation associated with new road construction</p>

<p>BI1: Conservation and enhancement of protected habitats and species and making a positive contribution to the local BAP.</p>	<p>41 BAP habitats found in Cornwall covering some 19652 ha overall. There are currently 496 County Wildlife Sites in Cornwall covering nearly 33,000 hectares or 10% of the county's land area. 166 Sites of Special Scientific Interest. 17 SACs, 3 Inland Marine cSACs and 16 SPAs.</p>	?	+	0	-	-	+	Low	0	Mitigation hierarchy of avoidance, reduction and compensation.	<p>Implementing suggestions in the Green Infrastructure Plan, Cornwall Access Strategy and compulsory travel plans should help reduce the effects of transport on the natural environment in the long term.</p>
<p>BI2: Improvement of ecological coherence, habitat connectivity and climate change resilience and adaption.</p>	<p>41 BAP habitats found in Cornwall covering some 19652 ha overall. There are currently 496 County Wildlife Sites in Cornwall covering nearly 33,000 hectares or 10% of the county's land area. 166 Sites of Special Scientific Interest. 17 SACs, 3 Inland Marine cSACs and 16 SPAs.</p>	?	+	0	-	-	+	Low	0	<p>Travel plans should focus on promoting sustainable modes and active travel encouraging a move away from using the private motor car.</p> <p>Include provision in landscaping /planting associated with creation of multi-use routes to create habitat corridors to assist in ecological coherence.</p> <p>Consideration of ecology and biodiversity effects through project level EIA of qualifying schemes.</p>	<p>However the upgrade of existing routes to multi-use routes will require County wide construction improvements having a potential direct negative effect on existing habitats and sites.</p> <p>Encouraging more people to use the existing rail network could reduce indirect effects associated with traffic flows and improve the natural environment.</p>
<p>AQ1: Reduce social, economic and environmental costs of transport on air quality.</p>	<p>2 AQMAs, Bodmin and then Camborne, Pool and Redruth grouped together. Pollutants of most concern are traffic-related fine airborne particulate matter and Nitrogen dioxide. A third AQMA is being considered for Tideford, again traffic related pollution. Air quality in the county is generally good..</p>	+	+	+	+	+	+	Low	<p>Biodiversity, the climate, water and soil could benefit from a reduction in air pollution.</p>	<p>Air quality monitoring programmes.</p> <p>Identify solutions that contribute to AQMA improvements.</p> <p>Consideration of air quality effects through project level EIA of qualifying schemes.</p> <p>Ensure LTP proposals do not create new areas of exceedence.</p>	<p>Implementing suggestions in the Green Infrastructure Plan, Cornwall Access Strategy and compulsory travel plans promoting sustainable modes will help reduce poor air quality levels. Encouraging people to use the existing rail network will also reduce congestion and pollution from road transport.</p>

<p>N1: Reduce the noise impact of the transport system.</p>	<p>Cornwall Quality of Life Survey indicated that 18.3% of respondents, in their opinion, thought vehicle noise was a 'very big' or 'fairly big' problem when considering contributors to neighbourhood and environmental problems. Over 40% felt it was 'not a very big problem' and fewer than 40% felt it was 'not a problem at all'.</p>	+/-	+	+	0	+	+	Low	<p>A reduction in noise has the potential to beneficially affect personal wellbeing, both through reducing nuisance and improving tranquillity and setting of landscapes. Reducing traffic levels and therefore noise disturbance may also be of benefit to biodiversity.</p>	<p>Travel plans should focus on promoting sustainable modes and active travel encouraging a move away from using the private motor car.</p> <p>Consideration of noise effects through project level EIA of qualifying schemes.</p>	<p>Implementing suggestions in the Green Infrastructure Plan, Cornwall Access Strategy and compulsory travel plans promoting sustainable modes will help reduce reliance on private motor car use therefore reducing noise levels from traffic. Encouraging people to use the rail network will also reduce traffic noise away from the rail lines. Any increase in rail service frequency is likely to have a negative effect on residents living close to the lines.</p>
<p>CC1: Mitigation: reduce the contribution of transportation to greenhouse gas emissions.</p>	<p>8.16 tonnes of CO₂ were released per capita in Cornwall in 2006. Lowest per capita emissions were found in the Isles of Scilly, with 5.73 tonnes. Road transport accounted for 29% of CO₂ emissions in Cornwall for 2006. Two thirds of Cornish road transport carbon emissions are from private cars.</p>	0	+	+	0	+	+	Low	<p>Biodiversity, the climate, water and soil will benefit from a reduction in air pollution.</p>	<p>Focus on promoting sustainable modes and active travel encouraging a move away from using the private motor car.</p> <p>Consideration of air quality effects through project level EIA of qualifying schemes.</p>	<p>Introducing more multi-modal routes should encourage the use of alternative modes and active travel reducing private motor car use. Encouraging people to travel on the train will also reduce emissions from road traffic.</p>
<p>CC2: Adaptation: minimise the vulnerability of the transport infrastructure to climate change.</p>	<p>DEFRA and the Environment Agency have identified which coastal sites and features are most at risk within the next 20 years of sea level change. Mullion Harbour and Godrevy feature in the high risk category and Boscastle Harbour falls into the medium risk category. Over the next 100 years around 15-30 km of additional roads in Cornwall are liable to become inundated by extreme tide levels. 3-5km of these are A roads, 2-4km are B roads, 5-9km C roads and 6-11km are unclassified roads.</p>	0	0	0	0	0	0	0	0	0	<p>These policies are not likely to have a significant effect on this objective.</p>

LTCH1: Create places, spaces and buildings that enhance local distinctiveness, appearance and sense of place.	12,490 Listed Buildings, 1,872 Scheduled Monuments, 145 Conservation Areas (4070 ha)	+	+	0	+	+	+	Low	0	Consideration of landscape and cultural heritage effects through project level EIA of qualifying schemes.	Implementing suggestions in the Green Infrastructure Plan, Cornwall Access Strategy and compulsory travel plans will help reduce the impact of transport on natural landscapes and townscapes in the long term. More efficient access routes and promoting the use of sustainable modes through travel plans will reduce traffic flows as will encourage people to use the current rail network. This will all contribute to improved place distinctiveness and enhancing current landscapes and townscapes.
LTCH2: Protect and enhance buildings, sites, structures and heritage assets that contribute to the quality of countryside, townscape and the public realm.	36 Registered Parks and Gardens (3720 ha), 2 Registered Battle Fields (115 ha), Cornish Mining World Heritage Site 18, 222 ha; 5. 5% of Cornwall.	+	+	0	+	+	+	Low			
LTCH3: Protect and enhance landscape character and local distinctiveness including Areas of Outstanding Natural Beauty and the World Heritage Site.		+	+	0	+	+	+	Low			
HSC1: Reduce the number of people killed and seriously injured in road collisions.	KSI total was 15% below the national baseline in 2006. Targets suggest a reduction of 30% by 2010/11 in KSI incidents.	+	+	+	0	+	+	Low	A change in frequency or severity of collisions will potentially have a corresponding effect on the potential for soil or land contamination as a result.	Focus on promoting sustainable modes and active travel encouraging a move away from using the private motor car. Consider measures for reducing traffic speeds and creation of traffic free routes where possible. Target user groups at greatest risk of being in a road traffic collision.	It is not clear whether this policy will have an effect on achieving the SEA objective. There is a possibility that a shift away from private motor car to other modes will improve the KSI statistics. Encouraging travel by rail should reduce the opportunities for fatal accidents and reduce injuries.
HSC2: Reduce levels crime and fear of crime.	Generally centred on speeding offences, drink driving offences and mobile phone use. 2005 there were 11,964 speeding offences compared to 6,289 in 2008.	0	0	0	0	0	0	Medium	0	0	These policies are not likely to have a significant effect on this objective.

<p>HSC3: Encourage healthier lifestyles particularly by encouraging more people to walk and cycle.</p>	<p>The health of people in Cornwall is generally better than the England average. Both male and female life expectancies are higher than the England average. Over the last ten years early death rates from heart disease and stroke as well as early death rates from cancer have been declining and remain below the England average.</p>	+	+	0	+	+	+	Low	<p>Biodiversity should benefit from reduced motor vehicle use. Reduction in noise levels and poor air quality near improved routes. Reduction in greenhouse gas emissions. Improved landscape tranquillity and setting through reduced traffic flows.</p>	<p>Travel plans should focus on promoting sustainable modes and active travel encouraging a move away from using the private motor car.</p>	<p>Travel plans and multi-modal routes will encourage people to adopt active travel modes such as walking and cycling, improving personal health and wellbeing. Encouraging people to use the rail network is also likely to contribute to achieving SEA objective as it increases the likelihood that some or all of the remainder of the journey will be conducted on foot or cycle.</p>
<p>A1: Improve accessibility of jobs, shops and other amenities for rural communities.</p>		+	?	0	0	+	+	Low		<p>Travel plans should focus on promoting sustainable modes and active travel encouraging a move away from using the private motor car.</p>	<p>The creation of additional multi-use routes will improve accessibility to non-vehicle travellers making shorter trips throughout the County. It is uncertain how the needs for longer trips i.e. from rural areas to the towns will be supported, although implementation of travel plans for new development should positively contribute to achieving this.</p>
<p>A2: Reduce the community severance effects of infrastructure.</p>		+	+	0	0	+	+	Low		<p>Identify opportunities for multi-modal interchanges to assist in addressing access issues.</p>	<p>Promotion of the rail network as a visitor travel mode should also assist in improving internal accessibility by reducing visitor vehicle traffic.</p>
<p>A3: Provide an inclusive transport network that meets the needs of society and specific groups such as the disabled and elderly.</p>		+	?	0	0	+	?	Low		<p>Consideration of socio-economic effects, including effects of deprivation and access, through project level EIA of qualifying schemes.</p>	<p>Upgrading existing routes to multi-modal and implementing suggestions in the Cornwall Access Strategy would improve sustainable access to the countryside.</p>
<p>A4: Improve sustainable access to the countryside</p>		+	+	+	0	+	+	Low			<p>This is a long-term Objective and policies and so effects are unlikely to be realised until the medium-term at the earliest.</p>
<p>E1: Invest in transport systems that will create a strong and sustainable economy by addressing economic barriers to growth, in particular access and congestion.</p>		0	+/?	+/?	0	+	+	Low		<p>Extending travel plan requirements and promotion of rail to other economic sectors would potentially extend the range of the benefits realised.</p>	<p>The emphasis of the above policies appears to be on tourism. Assuming the schemes implied by the policies address the access and congestion as barriers to economic growth, all of the above policies should indirectly support a strong and sustainable tourism economy. Reducing the number of visitors on the road will improve congestion for other sectors, particularly during the peak tourism season.</p>

Summary

Main Effects of the Plan Objectives and Policies

The policies under Objective 9 of the LTP have both positive and negative effects on the SEA objectives. Some of these negative effects will be felt over a short timescale, but others across the whole temporal scale.

Implementing suggestions in the Green Infrastructure Plan, Cornwall Access Strategy and compulsory travel plans will help reduce the impact of transport on natural resources in the long term. However the upgrade of existing routes to multi-use routes will require County wide construction improvements which could have a direct negative effect on water, soil, good agricultural land and biodiversity in the short term. The negative effects associated with construction must be considered in the action plan to deliver these improvements, including contamination.

The County wide construction will also have negative effects on SEA objectives WSM3 and WSM4. More minerals will be required for construction aggregates creating more pressure for extraction. More waste will also be produced. This should only have a negative effect in the short term. Once existing routes have been upgraded then less construction will be required in the long term. Implementing suggestions in the Green Infrastructure Plan and reusing demolition waste from transport infrastructure in new projects will help reduce waste levels.

Encouraging more people to use the existing rail network could reduce indirect effects associated with traffic flows and improve the natural environment.

Implementing suggestions in the Green Infrastructure Plan, Cornwall Access Strategy and compulsory travel plans promoting sustainable modes will help reduce poor air quality levels, greenhouse gas emissions and reduce noise. Encouraging people to use the existing rail network will also reduce congestion and pollution from road transport. Any increase in rail service frequency is likely to have a negative effect on residents living close to the lines.

More efficient access routes and promoting the use of sustainable modes through travel plans will reduce traffic flows as will encourage people to use the current rail network. This will all contribute to improved place distinctiveness and enhancing current landscapes and townscapes.

Travel plans and multi-modal routes will encourage people to adopt active travel modes such as walking and cycling, improving personal health and wellbeing. Encouraging people to use the rail network is also likely to contribute to achieving SEA objective HSC3 as it increases the likelihood that some or all of the remainder of the journey will be conducted on foot or cycle.

The creation of additional multi-use routes will improve accessibility to non-vehicle travellers making shorter trips throughout the County. It is uncertain how the needs for longer trips i.e. from rural areas to the towns will be supported, although implementation of travel plans for new development should positively contribute to achieving this. Promotion of the rail network as a visitor travel mode should also assist in improving internal accessibility by reducing visitor vehicle traffic.

Upgrading existing routes to multi-modal and implementing suggestions in the Cornwall Access Strategy would improve sustainable access to the countryside.

This is a long-term Objective and policies so many positive effects will not be realised until the medium-term at the earliest.

The emphasis of the above policies appears to be on tourism. Assuming the schemes implied by the policies address the access and congestion as barriers to economic growth, all of the above policies should indirectly support a strong and sustainable tourism economy. Reducing the number of visitors on the road will improve congestion for other sectors, particularly during the peak tourism season.

Cumulative Effects of the Plan Objectives and Policies

Any policies requiring construction may result in increased materials demand which may in turn increase need for quarried materials minerals. This will have an effect on land take, biodiversity and landscape wherever this material is extracted. There may also be negative effects on the historic environment setting.

Any policies requiring construction may result in the generation of construction waste. If unmanaged, this could result in inert material being disposed of in landfill rather than finding a beneficial use.

Biodiversity, the climate, water and soil could benefit from a reduction in air pollution. A reduction in noise has the potential to beneficially affect personal wellbeing, both through reducing nuisance and improving tranquillity and setting of landscapes.

A change in frequency or severity of collisions will potentially have a corresponding effect on the potential for soil or land contamination as a result.

Potential Mitigation

There are various recommendations and mitigation measures which enhance the effectiveness of these policies.

- Promoting the on-site reuse of materials in construction and providing targets for developers to meet in the use of recycled materials would strengthen policy and further help to protect the environment, as would further advice on local construction and demolition recycling initiatives and where materials can be sourced for use in construction would also be beneficial. Ground site waste could also be implemented into landscape improvement schemes helping with screening or environment enhancement.
- Travel plans should focus on promoting sustainable modes and active travel encouraging a move away from using the private motor car. They should also educate in the health benefits of walking and cycling.
- Again, air quality monitoring programmes and focusing on improving air quality within existing AQMAs is advised. Also exploring the use of noise management in management of existing infrastructure and the promotion of 'quieter' transport alternatives, including non- motorised travel should also be considered.
- Landscape and cultural heritage assessments on proposed developments should be integrated into the design process and mitigation plans implemented.
- Consideration of landscape, setting and vulnerability of adjacent sites in management of existing infrastructure and a reduction in speed from motorised transport will help to enhance existing landscapes and the sense of tranquillity
- Where possible, rail as an alternative to private vehicle travel and road haulage should be promoted.
- Consider whether there are any specific elements relating to the environment that could be worked into rural roads protocol.
- Consideration of environmental effects through project level EIA of qualifying schemes.
- Ensure LTP proposals do not create new areas of exceedence.
- Target user groups at greatest risk of being in a road traffic collision.
- Identify opportunities for multi-modal interchanges to assist in addressing access issues

LTP Goal: Healthy and active lifestyles

Objective 11: Improve the health of our communities through active travel											
Policies as of 8/10/2010: Ensure that all new development in villages and urban communities include appropriate pedestrian and cycling requirements, ensuring the people to walk and cycle development sites maximise access on foot and cycle with linkages to green infrastructure, neighbouring communities and transport facilities. Expand the capacity and quality of the walking and cycling networks whilst integrating with quality public transport services and interchanges/hubs to make walking and cycling easier to use. This will improve physical health and mental wellbeing, reducing stress and discomfort. Seek to improve conditions (safety, traffic speed and convenience) for encouraging walking and cycling trips to access jobs, services, education and training opportunities and social networks.											
	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects Identify other receptors with interrelated effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long				
WSM1: Minimise the impact of the transport network on the quality and quantity of the county's water resources.	19 surface sources operated by South West Water. Total of 79,813 million litres. In the South West river basin district 23 per cent of waters meet good ecological status and 41 per cent do not meet good status (449 water bodies). The majority of water bodies that fail to meet good status fail because of the phosphorus, fish and diatom elements of classification. Surface runoff from transport routes could be effecting water quality.	0	0	0	0	0	0	Medium	Reducing traffic speed should contribute to reducing the number of accidents, thereby reducing the risk of pollution as a result of collisions.	0	These policies are not likely to have a significant effect on this objective.
WSM2: Reduce contamination and safeguard soil structure quality and quantity from transport systems and infrastructure.	Shillet is most common soil type. Tend to be low in phosphates with impeded drainage, are difficult to manage in winter, but are highly productive if drained properly. 0.1% of agricultural land is Grade 1, 8% is Grade 2 and 61.2% is Grade 3a and 3b, the remainder is urban or poor. Contaminated land has largely arisen due to historical industrial activity, mainly mining.	+/-	+/-	0	+/-	+	+	Medium	0	Promotion of design guide and good practice to minimise loss of good quality agricultural land. Consideration of land take, land use, severance, soil quality and contamination effects through project level EIA of qualifying schemes.	Developments that maximise walking and cycling linkages to green infrastructure, neighbouring communities and transport facilities, will lead to a reduction in private car journeys, which will, in turn, reduce emissions which are a cause of soil acidification. However the provision of new and improved linkages is likely to require County wide construction improvements potentially resulting in permanent loss of good quality agricultural land. The negative effects associated with soil contamination and construction must be considered in the development proposals to deliver these improvements.
WSM3: Minimise the	Minerals currently	+/-	+/-	0	+/-	+/-	+/-	Medium	Any policies requiring	Promotion of on-	The creation of and improvement to pedestrian and cycling

Objective 11: Improve the health of our communities through active travel

Policies as of 8/10/2010:

Ensure that all new development in villages and urban communities include appropriate pedestrian and cycling requirements, ensuring the people to walk and cycle development sites maximise access on foot and cycle with linkages to green infrastructure, neighbouring communities and transport facilities.

Expand the capacity and quality of the walking and cycling networks whilst integrating with quality public transport services and interchanges/hubs to make walking and cycling easier to use. This will improve physical health and mental wellbeing, reducing stress and discomfort.

Seek to improve conditions (safety, traffic speed and convenience) for encouraging walking and cycling trips to access jobs, services, education and training opportunities and social networks.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long		Identify other receptors with interrelated effects		
impact of transport on mineral resources.	exploited in the county are granite for aggregates and building stones, china clay, slate and sandstone. 2009 production of primary aggregates in Cornwall was around 1.43 million tonnes; this is principally from 12 quarries throughout the County. China clay production contributes around £100 million to the UK balance of payments and makes a significant contribution to Cornwall's local economy each year. 2009 production of china clay was estimated to be in the region of 1.6 million tonnes.								construction may result in increased materials demand which may in turn increase need for quarried materials – this will have an effect on land take, biodiversity and landscape wherever this material is extracted. There may also be affects on the historic environment setting.	site reuse of materials in construction, promotion of targets for sourcing of materials for construction. Consideration of waste generation and disposal though EIA of qualifying schemes.	facilities may require County wide construction improvements having a potential negative effect on mineral resources in the short term for use in aggregates and an increase in extraction demand.
WSM4: Minimise the waste produced by transport systems and infrastructure.	Construction and demolition waste is the largest waste stream, 452,000 tonnes produced in 2008/09, 39% sent to landfill. Municipal waste arising 314,311. 63% sent to landfill. Need to reduce landfilling. Planning appeal logged for 240,000 tonne capacity energy from waste plant.	0	0	0	0	0	0	Medium	Any policies requiring construction may result in the generation of construction waste. If unmanaged, this could result in inert material being disposed of in landfill rather than finding a beneficial use.	Promotion of on-site reuse of materials in construction, promotion of targets for sourcing of materials for construction. Recycling initiatives in operation to maximise amount of commercial waste being recycled.	Implementing suggestions in the Green Infrastructure Plan and reusing demolition waste from transport infrastructure in new projects will help reduce waste levels. However the upgrade of existing routes to multi-use routes will require County wide construction improvements having a potential negative effect on construction waste generation in the short term.

Objective 11: Improve the health of our communities through active travel

Policies as of 8/10/2010:

Ensure that all new development in villages and urban communities include appropriate pedestrian and cycling requirements, ensuring the people to walk and cycle development sites maximise access on foot and cycle with linkages to green infrastructure, neighbouring communities and transport facilities.

Expand the capacity and quality of the walking and cycling networks whilst integrating with quality public transport services and interchanges/hubs to make walking and cycling easier to use. This will improve physical health and mental wellbeing, reducing stress and discomfort.

Seek to improve conditions (safety, traffic speed and convenience) for encouraging walking and cycling trips to access jobs, services, education and training opportunities and social networks.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects Identify other receptors with interrelated effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long				
										Consideration of waste generation and disposal through EIA of qualifying schemes.	
BI1: Conservation and enhancement of protected habitats and species and making a positive contribution to the local BAP.	41 BAP habitats found in Cornwall covering some 19652 ha overall. There are currently 496 County Wildlife Sites in Cornwall covering nearly 33,000 hectares or 10% of the county's land area.	+	+	0	0	+/-	+/-	Low	0	Follow good practice in developing and siting new infrastructure.	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.
BI2: Improvement of ecological coherence, habitat connectivity and climate change resilience and adaption.	166 Sites of Special Scientific Interest. 17 SACs, 3 Inland Marine cSACs and 16 SPAs.	+	+/-	?	0	+/-	0	Medium	0	Include provision in landscaping /planting associated with creation of multi-use routes to create habitat corridors to assist in ecological coherence. Consideration of ecology and biodiversity effects through project level EIA of qualifying schemes.	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.
AQ1: Reduce social, economic and environmental costs of transport on air quality.	2 AQMAs, Bodmin and then Camborne, Pool and Redruth grouped together. Pollutants of most concern are traffic-related fine airborne particulate matter and Nitrogen dioxide. A third AQMA is being	++	++	0	++	++	++	Medium	0	Air quality monitoring programmes. Identify solutions that contribute to AQMA improvements. Consideration of	Making active travel options more accessible and improving linkages to sustainable public transport networks will reduce the amount of motorised traffic users. This in turn will reduce noise nuisance from traffic flows and improve air quality by easing congestion and volume of traffic. Lowering traffic speeds will also help to reduce traffic noise levels.

Objective 11: Improve the health of our communities through active travel

Policies as of 8/10/2010:

Ensure that all new development in villages and urban communities include appropriate pedestrian and cycling requirements, ensuring the people to walk and cycle development sites maximise access on foot and cycle with linkages to green infrastructure, neighbouring communities and transport facilities.

Expand the capacity and quality of the walking and cycling networks whilst integrating with quality public transport services and interchanges/hubs to make walking and cycling easier to use. This will improve physical health and mental wellbeing, reducing stress and discomfort.

Seek to improve conditions (safety, traffic speed and convenience) for encouraging walking and cycling trips to access jobs, services, education and training opportunities and social networks.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long		Identify other receptors with interrelated effects		
	considered for Tideford, again traffic related pollution. Air quality in the county is generally good.									air quality effects through project level EIA of qualifying schemes. Ensure LTP proposals do not create new areas of exceedence	
N1: Reduce the noise impact of the transport system.	Cornwall Quality of Life Survey indicated that 18.3% of respondents, in their opinion, thought vehicle noise was a 'very big' or 'fairly big' problem when considering contributors to neighbourhood and environmental problems. Over 40% felt it was 'not a very big problem' and fewer than 40% felt it was 'not a problem at all'.	++	++	0	++	++	++	Medium	A reduction in noise has the potential to beneficially affect personal wellbeing, both through reducing nuisance and improving tranquillity and setting of landscapes. Reducing traffic levels and therefore noise disturbance may also be of benefit to biodiversity.	Noise monitoring. Consideration of noise effects through project level EIA of qualifying schemes	
CC1: Mitigation: reduce the contribution of transportation to greenhouse gas emissions.	8.16 tonnes of CO ₂ were released per capita in Cornwall in 2006. Lowest per capita emissions were found in the Isles of Scilly, with 5.73 tonnes. Road transport accounted for 29% of CO ₂ emissions in Cornwall for 2006. Two thirds of Cornish road transport carbon emissions are from private cars.	+	+	0	0	+	+	Low	Biodiversity and air quality will benefit from a reduction in greenhouse gas emissions.	Consideration of air quality effects through project level EIA of qualifying schemes. Ensure LTP proposals do not create new areas of exceedence	Making active travel options more accessible and improving linkages to sustainable public transport networks will reduce the amount of motorised traffic on the road and the amount of emissions being produced.
CC2: Adaptation: minimise the vulnerability of the	DEFRA and the Environment Agency have identified which	0	0	0	0	0	0	Medium	0	0	These policies are not likely to have a significant effect on this objective.

Objective 11: Improve the health of our communities through active travel

Policies as of 8/10/2010:

Ensure that all new development in villages and urban communities include appropriate pedestrian and cycling requirements, ensuring the people to walk and cycle development sites maximise access on foot and cycle with linkages to green infrastructure, neighbouring communities and transport facilities.

Expand the capacity and quality of the walking and cycling networks whilst integrating with quality public transport services and interchanges/hubs to make walking and cycling easier to use. This will improve physical health and mental wellbeing, reducing stress and discomfort.

Seek to improve conditions (safety, traffic speed and convenience) for encouraging walking and cycling trips to access jobs, services, education and training opportunities and social networks.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long		Identify other receptors with interrelated effects		
transport infrastructure to climate change.	coastal sites and features are most at risk within the next 20 years of sea level change. Mullion Harbour and Godrevy feature in the high risk category and Boscastle Harbour falls into the medium risk category. Over the next 100 years around 15-30 km of additional roads in Cornwall are liable to become inundated by extreme tide levels. 3-5km of these are A roads, 2-4km are B roads, 5-9km C roads and 6-11km are unclassified roads.										
LTCH1: Create places, spaces and buildings that enhance local distinctiveness, appearance and sense of place.	12,490 Listed Buildings, 1,872 Scheduled Monuments, 145 Conservation Areas (4070 ha) 36 Registered Parks and Gardens (3720 ha), 2	+	+	0	+	+	+	Medium	0	Consideration of landscape and cultural heritage effects through project level EIA of qualifying schemes.	Encouraging and making active travel options more accessible should reduce the amount of motorised traffic. This will reduce flows along routes helping to enhance landscapes, townscapes and designated sites by improving tranquillity and contribute to improved place distinctiveness and enhancing current landscapes and townscapes.
LTCH2: Protect and enhance buildings, sites, structures and heritage assets that contribute to the quality of countryside, townscape and the public realm.	Registered Battle Fields (115 ha), Cornish Mining World Heritage Site 18,222 ha; 5.5% of Cornwall.	+	+	0	+	+	+	Medium			
LTCH3: Protect and enhance landscape character and local distinctiveness including Areas of Outstanding Natural		+	+	0	+	+	+	Medium			

Objective 11: Improve the health of our communities through active travel

Policies as of 8/10/2010:

Ensure that all new development in villages and urban communities include appropriate pedestrian and cycling requirements, ensuring the people to walk and cycle development sites maximise access on foot and cycle with linkages to green infrastructure, neighbouring communities and transport facilities.

Expand the capacity and quality of the walking and cycling networks whilst integrating with quality public transport services and interchanges/hubs to make walking and cycling easier to use. This will improve physical health and mental wellbeing, reducing stress and discomfort.

Seek to improve conditions (safety, traffic speed and convenience) for encouraging walking and cycling trips to access jobs, services, education and training opportunities and social networks.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects Identify other receptors with interrelated effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long				
Beauty and the World Heritage Site.											
HSC1: Reduce the number of people killed and seriously injured in road collisions.	KSI total was 15% below the national baseline in 2006. Targets suggest a reduction of 30% by 2010/11 in KSI incidents.	+	+	0	+	++	++	Medium	0	Target user groups at greatest risk of being in a road traffic collision.	Reducing the volume of motorised traffic through alternative sustainable modes and limiting traffic speeds should make a direct contribution to reducing the amount of people killed and injured on the County's roads. Specifically aiming to improve safety levels on the county's roads will have a positive effect on meeting this objective.
HSC2: Reduce levels crime and fear of crime.	Generally centred on speeding offences, drink driving offences and mobile phone use. 2005 there were 11,964 speeding offences compared to 6,289 in 2008.	+	+	0	+	+	+	Medium	0	Consider sensor activated or solar lighting for rural bus stops.	By reducing stress and improving conditions this policy supports the SEA objective.
HSC3: Encourage healthier lifestyles particularly by encouraging more people to walk and cycle.	The health of people in Cornwall is generally better than the England average. Both male and female life expectancies are higher than the England average. Over the last ten years early death rates from heart disease and stroke as well as early death rates from cancer have been declining and remain below the England average.	++	++	0	++	++	++	High	0		There will be a direct positive effect on the achievement of this SEA Objective through implementation of the above policies.
A1: Improve accessibility of jobs, shops and other amenities for rural communities.		+	+	0	+	+	+	Medium	0	Consideration of socio-economic effects, including effects of deprivation and access, through project level EIA of qualifying schemes.	Ensuring that all new development in villages and urban communities include appropriate pedestrian and cycling requirements linking to green infrastructure, neighbouring communities and transport facilities supports the SEA accessibility objectives Expanding the capacity and quality of the walking and cycling networks whilst integrating with quality public transport services will improve accessibility to sustainable modes therefore supporting the objectives.
A2: Reduce the community severance effects of infrastructure.		+	+	0	+	+	+	Medium	0		

Objective 11: Improve the health of our communities through active travel

Policies as of 8/10/2010:

Ensure that all new development in villages and urban communities include appropriate pedestrian and cycling requirements, ensuring the people to walk and cycle development sites maximise access on foot and cycle with linkages to green infrastructure, neighbouring communities and transport facilities.

Expand the capacity and quality of the walking and cycling networks whilst integrating with quality public transport services and interchanges/hubs to make walking and cycling easier to use. This will improve physical health and mental wellbeing, reducing stress and discomfort.

Seek to improve conditions (safety, traffic speed and convenience) for encouraging walking and cycling trips to access jobs, services, education and training opportunities and social networks.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects Identify other receptors with interrelated effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long				
A3: Provide an inclusive transport network that meets the needs of society and specific groups such as the disabled and elderly.		+	+	0	+	+	+	Medium	0		
A4: Improve sustainable access to the countryside		+	+	0	+	+	+	medium	0	0	
E1: Invest in transport systems that will create a strong and sustainable economy by addressing economic barriers to growth, in particular access and congestion.		+	+	0	+	+	+	Medium	0	0	Providing better integrated transport systems and active travel improvements will encourage people to use alternative modes moving away from reliance on the private motor car. This will help reduce congestion on the County's roads enabling economic activity to function more efficiently.

Summary

Main Effects of the Plan Objectives and Polices

The majority of policies under Objective 11 of the LTP support the SEA objectives. There is only one negative rating for SEA objective B12. 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. There could also be a potential negative effect on construction waste generation in the short term and mineral use and extraction for short term construction. Implementing suggestions in the Green Infrastructure Plan and reusing demolition waste from transport infrastructure in new projects will help reduce waste levels and protect mineral resources.

Developments that maximise walking and cycling linkages to green infrastructure, neighbouring communities and transport facilities, will lead to a reduction in private car journeys, which will, in turn, reduce emissions which are a cause of soil acidification. However County wide construction improvements potentially resulting in permanent loss of good quality agricultural land means WSM2 has been rated as uncertain in the short term. The negative effects associated with soil contamination and construction must be considered in the development proposals to deliver these improvements.

Making active travel options more accessible and improving linkages to sustainable public transport networks will reduce the amount of motorised traffic users. This in turn will reduce noise nuisance from traffic flows and improve air quality and emissions by easing congestion and volume of traffic. Lowering traffic speeds will also help to lower noise levels. Reducing flows along routes helping to enhance landscapes, townscapes and designated sites by improving tranquillity and contribute to improved place distinctiveness and enhancing current landscapes and townscapes.

Reducing the volume of motorised traffic through alternative sustainable modes and limiting traffic speeds should make a direct contribution to reducing the amount of people killed and injured on the County's roads. Specifically aiming to improve safety levels on the county's roads will have a positive effect on meeting this objective. By reducing stress and improving conditions these policies also support SEA objective HSC2. There will be a direct positive effect on the achievement on SEA Objective HSC3 through implementation of the above policies.

Ensuring that all new development in villages and urban communities include appropriate pedestrian and cycling requirements linking to green infrastructure, neighbouring communities and transport facilities these policies support the SEA accessibility objectives. Expanding the capacity and quality of the walking and cycling networks whilst integrating with quality public transport services will improve accessibility to sustainable modes therefore help to provide sustainable access to the countryside.

Providing better integrated transport systems and active travel improvements will encourage people to use alternative modes moving away from reliance on the private motor car. This will help reduce congestion on the County's roads enabling economic activity to function more efficiently.

Cumulative Effects of the Plan Objectives and Policies

Reducing traffic speed should contribute to reducing the number of accidents, thereby reducing the risk of pollution as a result of collisions.

Any policies requiring construction may result in increased materials demand which may in turn increase need for quarried materials. This will have an effect on land take, biodiversity and landscape wherever this material is extracted. There may also be effects on the historic environment setting.

A reduction in noise has the potential to beneficially affect personal wellbeing, both through reducing nuisance and improving tranquillity and setting of landscapes. Reducing traffic levels and therefore noise disturbance may also be of benefit to biodiversity.

Potential Mitigation and Recommendations for the LTP

The policy tends to positively support the SEA objectives, but there are still some recommendations and mitigation methods which could be implemented to enhance the effectiveness of the above policies.

There should be promotion of design guidance and good practice to minimise loss of good quality agricultural land.

Promotion of on-site reuse of materials in construction and promotion of targets for sourcing and reusing of recycled materials for construction projects should be set.

Follow good practice in developing and siting new infrastructure.

Include provision in landscaping/planting associated with creation of multi-use routes to create habitat corridors to assist in ecological coherence.

Air quality monitoring programmes. Identify solutions that contribute to AQMA improvements.

Consideration of environmental effects through project level EIA of qualifying schemes.

Ensure LTP proposals do not create new areas of exceedence.

Target user groups at greatest risk of being in a road traffic collision.

Consider sensor activated or solar lighting for rural bus stops.

Objective 12: Increase awareness and an understanding of the health benefits of integrating cycling and walking into our daily lives.

Policies as of 8/10/2010 :

Integrate smarter choices with health, education, leisure and environment initiatives.

Improve public awareness of the environmental, health and economic benefits of walking and cycling, promoting positive attitudes towards walking and cycling and encouraging their use through the marketing and publicity, special events and education programs.

Increase public awareness of the existing and planned cycle and pedestrian provision and routes, and promote the healthy travel options by improving information provision on walking and cycling routes.

Promote multimodal travel options for visitors to Cornwall, by offering supportive information and incentives (such as discounted entry into attractions), improving options for walking and cycling, making it an attractive, viable and practical alternative as a car free day out.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long		Identify other receptors with interrelated effects		
WSM1: Minimise the impact of the transport network on the quality and quantity of the county's water resources.	19 surface sources operated by South West Water. Total of 79,813 million litres. In the South West river basin district 23 per cent of waters meet good ecological status and 41 per cent do not meet good status (449 water bodies). The majority of water bodies that fail to meet good status fail because of the phosphorus, fish and diatom elements of classification. Surface runoff from transport routes could be effecting water quality.	0	0	0	0	0	0	Medium	0	0	These policies are not likely to have a significant effect on this objective.
WSM2: Reduce contamination and safeguard soil structure quality and quantity from transport systems and infrastructure.	Shillet is most common soil type. Tend to be low in phosphates with impeded drainage, are difficult to manage in winter, but are highly productive if drained properly. 0.1% of agricultural land is Grade 1, 8% is Grade 2 and 61.2% is Grade 3a and 3b, the remainder is urban or poor. Contaminated land has largely arisen due to historical industrial activity, mainly mining.	+	0	0	0	0	+	Medium	Biodiversity will benefit from less contamination of soil.	0	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.
WSM3: Minimise the impact of transport on mineral resources.	Minerals currently exploited in the county are granite for aggregates and building stones, china clay, slate	0	0	0	0	0	0	Medium	0	0	These policies are not likely to have a significant effect on this objective.

Objective 12: Increase awareness and an understanding of the health benefits of integrating cycling and walking into our daily lives.

Policies as of 8/10/2010 :

Integrate smarter choices with health, education, leisure and environment initiatives.

Improve public awareness of the environmental, health and economic benefits of walking and cycling, promoting positive attitudes towards walking and cycling and encouraging their use through the marketing and publicity, special events and education programs.

Increase public awareness of the existing and planned cycle and pedestrian provision and routes, and promote the healthy travel options by improving information provision on walking and cycling routes.

Promote multimodal travel options for visitors to Cornwall, by offering supportive information and incentives (such as discounted entry into attractions), improving options for walking and cycling, making it an attractive, viable and practical alternative as a car free day out.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long		Identify other receptors with interrelated effects		
	and sandstone. 2009 production of primary aggregates in Cornwall was around 1.43 million tonnes; this is principally from 12 quarries throughout the County. China clay production contributes around £100 million to the UK balance of payments and makes a significant contribution to Cornwall's local economy each year. 2009 production of china clay was estimated to be in the region of 1.6 million tonnes.										
WSM4: Minimise the waste produced by transport systems and infrastructure.	Construction and demolition waste is the largest waste stream, 452,000 tonnes produced in 2008/09, 39% sent to landfill. Municipal waste arising 314,311. 63% sent to landfill. Need to reduce landfilling. Planning appeal logged for 240,000 tonne capacity energy from waste plant.	0	0	0	0	0	0	Medium	0	0	These policies are not likely to have a significant effect on this objective.
BI1: Conservation and enhancement of protected habitats and species and making a positive contribution to the local BAP.	41 BAP habitats found in Cornwall covering some 19652 ha overall. There are currently 496 County Wildlife Sites in Cornwall covering nearly 33,000 hectares or 10% of the county's land area.	+	+	0	+	+	+	Medium	0	Educating people on how active and multimodal travel options can benefit the environment as well as the health options.	All of the above policies help to promote and educate people on the benefits of using multi modal or active travel options. This could potentially result in more people taking up these travel options resulting in a reduction of traffic flows. This will benefit biodiversity through a reduction in pollution, noise and the need for new road schemes.
BI2: Improvement of ecological coherence, habitat connectivity and	166 Sites of Special Scientific Interest.	0	0	0	0	0	0	Medium	0	0	These policies are not likely to have a significant effect on this objective.

Objective 12: Increase awareness and an understanding of the health benefits of integrating cycling and walking into our daily lives.

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	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long		Identify other receptors with interrelated effects		
climate change resilience and adaption.	17 SACs, 3 Inland Marine cSACs and 16 SPAs.										
AQ1: Reduce social, economic and environmental costs of transport on air quality.	2 AQMAs, Bodmin and then Camborne, Pool and Redruth grouped together. Pollutants of most concern are traffic-related fine airborne particulate matter and Nitrogen dioxide. A third AQMA is being considered for Tideford, again traffic related pollution. Air quality in the county is generally good..	++	++	0	++	++	++	Medium	Biodiversity, water resources and soil will benefit from a reduction in noise pollution.	Air quality monitoring programmes. Concentration on AQMA improvements.	All of the above policies help to promote and educate people on the benefits of using multi modal or active travel options. This could potentially result in more people taking up these travel options resulting in a reduction of traffic flows. This will benefit air quality through a reduction in pollution and congestion levels.
N1: Reduce the noise impact of the transport system.	Cornwall Quality of Life Survey indicated that 18.3% of respondents, in their opinion, thought vehicle noise was a 'very big' or 'fairly big' problem when considering contributors to neighbourhood and environmental problems. Over 40% felt it was 'not a very big problem' and fewer than 40% felt it was 'not a problem at all'.	++	++	0	++	++	++	Medium	Biodiversity will benefit from a reduction in noise pollution. Landscapes will be enhanced.	Noise monitoring. Introduction of noise reducing materials in any construction.	All of the above policies help to promote and educate people on the benefits of using multi modal or active travel options. This could potentially result in more people taking up these travel options resulting in a reduction of traffic flows. This will help to reduce traffic noise.
CC1: Mitigation: reduce the contribution of transportation to greenhouse gas emissions.	8.16 tonnes of CO ₂ were released per capita in Cornwall in 2006. Lowest per capita emissions were found in the Isles of Scilly, with 5.73 tonnes. Road transport accounted for 29% of CO ₂ emissions in Cornwall for 2006. Two thirds of Cornish road transport carbon emissions	++	++	0	++	++	++	Medium	Biodiversity will benefit from a reduction in greenhouse gas emissions.	Air quality monitoring programmes. Concentration on AQMA improvements.	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 in turn the amount of greenhouse gas emissions from private motor vehicles.

Objective 12: Increase awareness and an understanding of the health benefits of integrating cycling and walking into our daily lives.

Policies as of 8/10/2010 :

Integrate smarter choices with health, education, leisure and environment initiatives.

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Increase public awareness of the existing and planned cycle and pedestrian provision and routes, and promote the healthy travel options by improving information provision on walking and cycling routes.

Promote multimodal travel options for visitors to Cornwall, by offering supportive information and incentives (such as discounted entry into attractions), improving options for walking and cycling, making it an attractive, viable and practical alternative as a car free day out.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long		Identify other receptors with interrelated effects		
	are from private cars.										
CC2: Adaptation: minimise the vulnerability of the transport infrastructure to climate change.	DEFRA and the Environment Agency have identified which coastal sites and features are most at risk within the next 20 years of sea level change. Mullion Harbour and Godrevy feature in the high risk category and Boscastle Harbour falls into the medium risk category. Over the next 100 years around 15-30 km of additional roads in Cornwall are liable to become inundated by extreme tide levels. 3-5km of these are A roads, 2-4km are B roads, 5-9km C roads and 6-11km are unclassified roads.	0	0	0	0	0	0	Medium	0	0	These policies are not likely to have a significant effect on this objective.
LTCH1: Create places, spaces and buildings that enhance local distinctiveness, appearance and sense of place.	12,490 Listed Buildings, 1,872 Scheduled Monuments, 145 Conservation Areas (4070 ha)	+	+	0	+	+	+	Low	Biodiversity will benefit from the protection of natural landscapes.	0	Encouraging people to use active travel options and educating the public on their health benefits will potentially reduce the amount of motorised traffic. This will reduce flows along routes helping to enhance landscapes, townscape and designated sites
LTCH2: Protect and enhance buildings, sites, structures and heritage assets that contribute to the quality of countryside, townscape and the public realm.	36 Registered Parks and Gardens (3720 ha), 2 Registered Battle Fields (115 ha), Cornish Mining World Heritage Site 18, 222 ha; 5. 5% of Cornwall.	+	+	0	+	+	+	Low			
LTCH3: Protect and enhance landscape character and local distinctiveness including Areas of		+	+	0	+	+	+	Low			

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Increase public awareness of the existing and planned cycle and pedestrian provision and routes, and promote the healthy travel options by improving information provision on walking and cycling routes.

Promote multimodal travel options for visitors to Cornwall, by offering supportive information and incentives (such as discounted entry into attractions), improving options for walking and cycling, making it an attractive, viable and practical alternative as a car free day out.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long		Identify other receptors with interrelated effects		
Outstanding Natural Beauty and the World Heritage Site.											
HSC1: Reduce the number of people killed and seriously injured in road collisions.	KSI total was 15% below the national baseline in 2006. Targets suggest a reduction of 30% by 2010/11 in KSI incidents.	+	+	0	+	+	+	Medium	0	0	Reducing the volume of motorised traffic through promotion of alternative options should reduce the amount of people killed and injured on the County's roads.
HSC2: Reduce levels crime and fear of crime.	Generally centred on speeding offences, drink driving offences and mobile phone use. 2005 there were 11,964 speeding offences compared to 6,289 in 2008.	0	0	0	0	0	0	Medium	0	0	These policies are not likely to have a significant effect on this objective.
HSC3: Encourage healthier lifestyles particularly by encouraging more people to walk and cycle.	The health of people in Cornwall is generally better than the England average. Both male and female life expectancies are higher than the England average. Over the last ten years early death rates from heart disease and stroke as well as early death rates from cancer have been declining and remain below the England average.	++	++	0	++	++	++	High	0	0	Providing a wider choice of transport modes and encouraging walking and cycling will directly support this SEA Objective. Educating people on the health benefits of active travel should increase uptake making it a more attractive option. Providing incentives to travel 'car-free' should also serve to encourage uptake on non-motorised modes of transport.
A1: Improve accessibility of jobs, shops and other amenities for rural communities.		+	+	0	+	+	+	Medium	0	0	Increasing public awareness and information provision relating to the existing and planned cycle and pedestrian provision and routes will help improve access to shops and other amenities.
A2: Reduce the community severance effects of infrastructure.		0	0	0	0	0	0	Medium	0	0	These policies are not likely to have a significant effect on this objective.
A3: Provide an inclusive transport network that meets the needs of society and		0	0	0	0	0	0	Medium	0	0	These policies are not likely to have a significant effect on this objective.

Objective 12: Increase awareness and an understanding of the health benefits of integrating cycling and walking into our daily lives.

Policies as of 8/10/2010 :

Integrate smarter choices with health, education, leisure and environment initiatives.

Improve public awareness of the environmental, health and economic benefits of walking and cycling, promoting positive attitudes towards walking and cycling and encouraging their use through the marketing and publicity, special events and education programs.

Increase public awareness of the existing and planned cycle and pedestrian provision and routes, and promote the healthy travel options by improving information provision on walking and cycling routes.

Promote multimodal travel options for visitors to Cornwall, by offering supportive information and incentives (such as discounted entry into attractions), improving options for walking and cycling, making it an attractive, viable and practical alternative as a car free day out.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long		Identify other receptors with interrelated effects		
	specific groups such as the disabled and elderly.										
	A4:Improve sustainable access to the countryside	+	+	0	+	+	+	medium	0	0	Increasing public awareness of the existing and planned cycle and pedestrian provision and routes will help improve sustainable access to the country side.
	E1: Invest in transport systems that will create a strong and sustainable economy by addressing economic barriers to growth, in particular access and congestion.	+	+	0	+	+	+	Medium	0	0	Tourism plays a key role in Cornwall's economy. Promoting multimodal travel options for visitors to Cornwall, by offering supportive information and incentives will enable visitor to visit attractions and coastal holiday destinations will potentially stimulate growth through the 'no car' holiday. Indirectly, this could benefit the wider economy, by relieving some of the pressure on the existing road network.

Summary

Main Effects of the Plan Objectives and Policies

The Policies under Objective 12 of the LTP which relate to the SEA objectives all have direct and indirect positive effects.

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.

All of the above policies help to promote and educate people on the benefits of using multi modal or active travel options. This could potentially result in more people taking up these travel options resulting in a reduction of traffic flows. This will benefit biodiversity through a reduction in pollution, noise and the need for new road schemes. This will also benefit air quality, greenhouse gas emissions and congestion levels. Less traffic flows will also help to enhance landscapes, townscape and designated sites

Promotion of alternative options should reduce the amount of people killed and injured on the County's roads and providing a wider choice of transport modes and encouraging walking and cycling will directly support this SEA Objective HSC3. Educating people on the health benefits of active travel should also increase uptake making it a more attractive option.

Increasing public awareness and information provision relating to the existing and planned cycle and pedestrian provision and routes will help improve access to shops and other amenities.

Tourism plays a key role in Cornwall's economy. Promoting multimodal travel options for visitors to Cornwall, by offering supportive information and incentives will enable visitor to visit attractions and coastal holiday destinations will potentially stimulate growth through the 'no car' holiday. Indirectly, this could benefit the wider economy, by relieving some of the pressure on the existing road network.

Cumulative Effects of the Plan Objectives and Policies

The amount of cumulative effects are limited for this set of policies. There will be biodiversity benefits from less soil contamination and noise and air pollution. Landscapes are also likely to benefit from the mentioned effects.

Potential Mitigation and Recommendations for the LTP

Educating people on how active and multimodal travel options can benefit the environment as well as the health options.

Air quality monitoring programmes should be encouraged especially within existing AQMAs.

Promotion of Noise monitoring and the introduction of noise reducing materials in any construction may also be beneficial when implementing policy.

LTP Goal: Community Safety and Individual Wellbeing:

Objective 13: Reduce crime and the fear of crime in using transport.

Policies as of 8/10/2010:

Address communities fears about irresponsible driving of others that may result in a road traffic collision due to excessive or inappropriate speed, incorrect use of mobile phones or driving whilst under the influence of alcohol or drugs by continuing with speed management programmes including the introduction of 20mph speed limits outside schools and targeted road safety education and awareness programmes at the most vulnerable road users e.g young drivers and their passengers, so that people feel safer and securer within the communities in which they live and work.

Exercise due regard of the likely effect of crime, the fear of crime and ASB in residential neighbourhoods and town centres, including car parks, by good design of the streetscape, road layouts, walking and cycling routes and public space as part of new development or specific locations on the highway network. So overall low crime levels continue and so that these areas remain safe places for people to enjoy community pride, self respect and feeling of security in their daily life. Design out crime, fear of crime and ASB in using passenger transport and supporting transport networks to enable people to feel safer when out travelling and encourage the take up of sustainable transport. Good design of public transport waiting facilities, transport hubs and stations and connecting facilities, i.e walking routes, to services so people feel safe when out and to encourage people to travel to places by modes other than the car.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long		Identify other receptors with interrelated effects		
WSM1: Minimise the impact of the transport network on the quality and quantity of the county's water resources.	19 surface sources operated by South West Water. Total of 79,813 million litres. In the South West river basin district 23 per cent of waters meet good ecological status and 41 per cent do not meet good status (449 water bodies). The majority of water bodies that fail to meet good status fail because of the phosphorus, fish and diatom elements of classification. Surface runoff from transport routes could be affecting water quality.	0	0	0	0	0	0	Medium	Potential biodiversity benefits from improved water quality.	0	Encouraging the take up of sustainable transport modes and improving design of connecting facilities and walking routes may reduce the number of private car journeys, so may reduce emissions and have a positive effect on water quality; however the effect is not likely to be significant.
WSM2: Reduce contamination and safeguard soil structure quality and quantity from transport systems and infrastructure.	Shillet is most common soil type. Tend to be low in phosphates with impeded drainage, are difficult to manage in winter, but are highly productive if drained properly. 0.1% of agricultural land is Grade 1, 8% is Grade 2 and 61.2% is Grade 3a and 3b, the remainder is urban or poor. Contaminated land has largely arisen due to historical industrial activity, mainly mining.	0	0	0	0	0	0	Medium	Potential biodiversity benefits from improved air quality and soil. Landscapes will potential benefit from the protection of areas of good quality agricultural land.	Safeguard good quality agricultural land.	Encouraging the take up of sustainable transport modes and improving design of connecting facilities and walking routes may reduce the number of private car journeys, so may reduce emissions and have a positive effect on soil quality; however the effect is not likely to be significant. The policies may help to reduce land take in the long term for road schemes.
WSM3: Minimise the impact of transport on mineral resources.	Minerals currently exploited in the county are granite for aggregates and building	0	0	0	0	0	0	Medium	0	0	These policies are not likely to have a significant effect on this objective.

Objective 13: Reduce crime and the fear of crime in using transport.

Policies as of 8/10/2010:

Address communities fears about irresponsible driving of others that may result in a road traffic collision due to excessive or inappropriate speed, incorrect use of mobile phones or driving whilst under the influence of alcohol or drugs by continuing with speed management programmes including the introduction of 20mph speed limits outside schools and targeted road safety education and awareness programmes at the most vulnerable road users e.g young drivers and their passengers, so that people feel safer and securer within the communities in which they live and work.

Exercise due regard of the likely effect of crime, the fear of crime and ASB in residential neighbourhoods and town centres, including car parks, by good design of the streetscape, road layouts, walking and cycling routes and public space as part of new development or specific locations on the highway network. So overall low crime levels continue and so that these areas remain safe places for people to enjoy community pride, self respect and feeling of security in their daily life. Design out crime, fear of crime and ASB in using passenger transport and supporting transport networks to enable people to feel safer when out travelling and encourage the take up of sustainable transport. Good design of public transport waiting facilities, transport hubs and stations and connecting facilities, i.e walking routes, to services so people feel safe when out and to encourage people to travel to places by modes other than the car.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects Identify other receptors with interrelated effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long				
	stones, china clay, slate and sandstone. 2009 production of primary aggregates in Cornwall was around 1.43 million tonnes; this is principally from 12 quarries throughout the County. China clay production contributes around £100 million to the UK balance of payments and makes a significant contribution to Cornwall's local economy each year. 2009 production of china clay was estimated to be in the region of 1.6 million tonnes.										
WSM4: Minimise the waste produced by transport systems and infrastructure.	Construction and demolition waste is the largest waste stream, 452,000 tonnes produced in 2008/09, 39% sent to landfill. Municipal waste arising 314,311. 63% sent to landfill. Need to reduce landfilling. Planning appeal logged for 240,000 tonne capacity energy from waste plant.	0	0	0	0	0	0	Medium	0	0	These policies are not likely to have a significant effect on this objective.
BI1: Conservation and enhancement of protected habitats and species and making a positive contribution to the local BAP.	41 BAP habitats found in Cornwall covering some 19652 ha overall. There are currently 496 County Wildlife Sites in Cornwall covering nearly 33,000 hectares or 10% of the county's land area. 166 Sites of Special Scientific Interest. 17 SACs, 3 Inshore Marine	+/-	+/-	+/-	+/-	+/-	+/-	Low		Mitigation hierarchy of avoidance, reduction and compensation. Protection of designated sites.	Encouraging the take up of sustainable transport modes and improving design of connecting facilities and walking routes may reduce the amount traffic flows benefiting in the long term biodiversity.
BI2: Improvement of ecological coherence, habitat connectivity and climate change resilience and adaptation.		+/-	+/-	+/-	+/-	+/-	+/-	Low	0	Ensure lighting design and implementation takes full account of the implications and effects on ecology.	However, deployment of street lighting etc. may interrupt nocturnal species and foraging routes; e.g. bat foraging corridors.

Objective 13: Reduce crime and the fear of crime in using transport.

Policies as of 8/10/2010:

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Exercise due regard of the likely effect of crime, the fear of crime and ASB in residential neighbourhoods and town centres, including car parks, by good design of the streetscape, road layouts, walking and cycling routes and public space as part of new development or specific locations on the highway network. So overall low crime levels continue and so that these areas remain safe places for people to enjoy community pride, self respect and feeling of security in their daily life. Design out crime, fear of crime and ASB in using passenger transport and supporting transport networks to enable people to feel safer when out travelling and encourage the take up of sustainable transport. Good design of public transport waiting facilities, transport hubs and stations and connecting facilities, i.e walking routes, to services so people feel safe when out and to encourage people to travel to places by modes other than the car.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects Identify other receptors with interrelated effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long				
	cSACs and 16 SPAs.									Consider sensor activated lighting for rural bus stops. Procure/specify low-UV lighting types with high directionality (e.g. LED) to reduce effect on foraging wildlife. Promote opportunities for improving habitat connectivity and ecological coherence as part of development approval process.	
AQ1: Reduce social, economic and environmental costs of transport on air quality.	2 AQMAs; Bodmin AQMA and Camborne, Pool and Redruth.AQMA. Pollutants of most concern are traffic-related fine airborne particulate matter and Nitrogen dioxide. A third AQMA is being considered for Tideford, again traffic related pollution. Air quality in the county is generally good	+/-	+	0	+	+	+	Low	Reducing air pollution will increase the quality of landscapes and townscapes and their associated biodiversity. Potential improvement of soil acidity levels.	Travel plans and local initiatives to reduce poor air quality should seek to support reductions in existing AQMAs where appropriate. Air quality monitoring and targets within the 3-year action plans. Travel plans should seek to prioritise use of sustainable and low carbon transport over the private car. Consider methods for traffic calming that facilitate smooth traffic flow.	Making active travel options more attractive through improving design will increase user up take reducing the amount of motorised traffic users. This in turn will reduce noise nuisance from traffic flows and improve air quality by easing congestion and volume of traffic. Lowering traffic speeds may also help to reduce traffic noise levels, although there may be some negative effect to air quality as a result of elevated emissions in traffic-calmed areas (i.e. areas where speed is restricted to 20 mph using road humps or similar).
N1: Reduce the noise impact of the transport system.	Cornwall Quality of Life Survey indicated that 18.3% of respondents, in their opinion, thought vehicle noise was a 'very big' or 'fairly big' problem when	+	+	0	+	+	+	Low	A reduction in noise has the potential to beneficially affect personal wellbeing, both through reducing nuisance and improving tranquillity and setting of landscapes.	Noise monitoring and targets within the 3 year action plans Introduction of noise reducing materials in any construction.	

Objective 13: Reduce crime and the fear of crime in using transport.

Policies as of 8/10/2010:

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Exercise due regard of the likely effect of crime, the fear of crime and ASB in residential neighbourhoods and town centres, including car parks, by good design of the streetscape, road layouts, walking and cycling routes and public space as part of new development or specific locations on the highway network. So overall low crime levels continue and so that these areas remain safe places for people to enjoy community pride, self respect and feeling of security in their daily life. Design out crime, fear of crime and ASB in using passenger transport and supporting transport networks to enable people to feel safer when out travelling and encourage the take up of sustainable transport. Good design of public transport waiting facilities, transport hubs and stations and connecting facilities, i.e walking routes, to services so people feel safe when out and to encourage people to travel to places by modes other than the car.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects Identify other receptors with interrelated effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long				
	considering contributors to neighbourhood and environmental problems. Over 40% felt it was 'not a very big problem' and fewer than 40% felt it was 'not a problem at all'.								Reducing traffic levels and therefore noise disturbance may also be of benefit to biodiversity.		
CC1: Mitigation: reduce the contribution of transportation to greenhouse gas emissions.	8.16 tonnes of CO ₂ were released per capita in Cornwall in 2006. Lowest per capita emissions were found in the Isles of Scilly, with 5.73 tonnes. Road transport accounted for 29% of CO ₂ emissions in Cornwall for 2006. Two thirds of Cornish road transport carbon emissions are from private cars.	+/-	+	0	+	+	+	Low	Reducing air pollution will increase the quality of landscapes and townscapes and their associated biodiversity. Potential improvement of soil acidity levels.	Establishing long-term objectives and opportunities in tandem with short-term action through a 3-year action plan including the development of an annual work programme and a system to monitor progress, will help to implement the above polices and help identify areas which need focusing on. Consider methods for traffic calming that facilitate smooth traffic flow.	Making active travel options more attractive through improving design will reduce the amount of motorised traffic users. Also improving design of road layouts, transport hubs, stations and connecting facilities will encourage more people to use sustainable modes of transport helping to reduce greenhouse gas emissions. There may be some negative effect as a result of elevated emissions in traffic-calmed areas (i.e. areas where speed is restricted to 20 mph using road humps or similar).
CC2: Adaptation: minimise the vulnerability of the transport infrastructure to climate change.	DEFRA and the Environment Agency have identified which coastal sites and features are most at risk within the next 20 years of sea level change. Mullion Harbour and Godrevy feature in the high risk category and Boscastle Harbour falls into the medium risk category. Over the next 100 years around 15-30 km of additional roads in Cornwall are liable to become inundated by extreme tide	0	0	0	0	0	0	Medium	0	Consider sensor activated or solar lighting for rural bus stops. Consider different lighting types in terms of energy demand.	These policies are not likely to have a significant effect on this objective.

Objective 13: Reduce crime and the fear of crime in using transport.

Policies as of 8/10/2010:

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Exercise due regard of the likely effect of crime, the fear of crime and ASB in residential neighbourhoods and town centres, including car parks, by good design of the streetscape, road layouts, walking and cycling routes and public space as part of new development or specific locations on the highway network. So overall low crime levels continue and so that these areas remain safe places for people to enjoy community pride, self respect and feeling of security in their daily life. Design out crime, fear of crime and ASB in using passenger transport and supporting transport networks to enable people to feel safer when out travelling and encourage the take up of sustainable transport. Good design of public transport waiting facilities, transport hubs and stations and connecting facilities, i.e walking routes, to services so people feel safe when out and to encourage people to travel to places by modes other than the car.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects Identify other receptors with interrelated effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long				
	levels. 3-5km of these are A roads, 2-4km are B roads, 5-9km C roads and 6-11km are unclassified roads.			0							
LTCH1: Create places, spaces and buildings that enhance local distinctiveness, appearance and sense of place.	12,490 Listed Buildings, 1,872 Scheduled Monuments, 145 Conservation Areas (4070 ha) 36 Registered Parks and Gardens (3720 ha), 2 Registered Battle Fields (115 ha), Cornish Mining World Heritage Site 18, 222 ha; 5. 5% of Cornwall.	+/-	+/-	0	+/-	+/-	+/-	Medium	0	Prioritise use of sustainable and low carbon transport over the private car.	Improving design of the streetscape, road layouts, walking and cycling routes and public space could potentially improve and help to protect specific landscapes/townscapes. Also encouraging and improving sustainable transport links could help reduce traffic flows improving sense of place and distinctiveness. However 'good design' principles must consider all environmental issues and come to a compromise in decision making.
LTCH2: Protect and enhance buildings, sites, structures and heritage assets that contribute to the quality of countryside, townscape and the public realm.		+/-	+/-	0	+/-	+/-	+/-	Medium	0	Ensure landscape, townscape and cultural heritage setting is fully taken into account in design of new facilities or facilities improvements.	
LTCH3: Protect and enhance landscape character and local distinctiveness including Areas of Outstanding Natural Beauty and the World Heritage Site.		+/-	+/-	0	+/-	+/-	+/-	Medium	0	Consider sensor activated lighting for rural bus stops. Consider different lighting types for reduced light spill e.g. LED technology. Travel plans should also be applied to developments proposed within any designated areas. There should also be strict monitoring with these areas.	
HSC1: Reduce the number of people killed and seriously injured in road collisions.	KSI total was 15% below the national baseline in 2006. Targets suggest a reduction of 30% by 2010/11 in KSI incidents.	++	++	0	++	++	++	Medium	0	Focus on promoting sustainable modes and active travel encouraging a move away from using the private motor car. Consider measures for reducing traffic speeds and creation of traffic	Addressing community fears about irresponsible driving of others that may result in road traffic collision due to excessive or inappropriate speed, incorrect use of mobile phones or driving whilst under the influence of alcohol or drugs, will all help to reduce deaths and serious injury on the County's roads. There will be a direct positive effect on the achievement of this SEA Objective through

Objective 13: Reduce crime and the fear of crime in using transport.

Policies as of 8/10/2010:

Address communities fears about irresponsible driving of others that may result in a road traffic collision due to excessive or inappropriate speed, incorrect use of mobile phones or driving whilst under the influence of alcohol or drugs by continuing with speed management programmes including the introduction of 20mph speed limits outside schools and targeted road safety education and awareness programmes at the most vulnerable road users e.g young drivers and their passengers, so that people feel safer and securer within the communities in which they live and work.

Exercise due regard of the likely effect of crime, the fear of crime and ASB in residential neighbourhoods and town centres, including car parks, by good design of the streetscape, road layouts, walking and cycling routes and public space as part of new development or specific locations on the highway network. So overall low crime levels continue and so that these areas remain safe places for people to enjoy community pride, self respect and feeling of security in their daily life. Design out crime, fear of crime and ASB in using passenger transport and supporting transport networks to enable people to feel safer when out travelling and encourage the take up of sustainable transport. Good design of public transport waiting facilities, transport hubs and stations and connecting facilities, i.e walking routes, to services so people feel safe when out and to encourage people to travel to places by modes other than the car.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects Identify other receptors with interrelated effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long				
										free routes where possible. Target user groups at greatest risk of being in a road traffic collision.	implementation of the above policies
HSC2: Reduce levels crime and fear of crime.	Generally centred on speeding offences, drink driving offences and mobile phone use. 2005 there were 11,964 speeding offences compared to 6,289 in 2008.	++	++	0	++	++	++	Medium	0	Consider sensor activated or solar lighting for rural bus stops.	There will be a direct positive effect on the achievement of this SEA Objective through implementation of the above policies.
HSC3: Encourage healthier lifestyles particularly by encouraging more people to walk and cycle.	The health of people in Cornwall is generally better than the England average. Both male and female life expectancies are higher than the England average. Over the last ten years early death rates from heart disease and stroke as well as early death rates from cancer have been declining and remain below the England average.	+	+	0	+	+	+	Medium	Biodiversity should benefit from reduced motor vehicle use. Reduction in noise levels and poor air quality near improved routes. Reduction in greenhouse gas emissions. Improved landscape tranquillity and setting through reduced traffic flows.	0	Encouraging the take up of sustainable transport modes and improving safety and design of connecting facilities and walking routes will help to promote healthier lifestyles.
A1: Improve accessibility of jobs, shops and other amenities for rural communities.		+	+	0	+	+	+	Medium	0		Accessibility will be improved by better design of new developments, streetscapes, road layouts, walking and cycling routes, transport hubs and stations. Improving safety throughout the public transport network will encourage more people to use it, especially more vulnerable groups such as the elderly and disabled.
A2: Reduce the community severance effects of infrastructure.		+	+	0	+	+	+	Medium	0		
A3: Provide an inclusive transport network that meets the needs of society and specific groups such as the disabled and elderly.		+	+	0	+	+	+	Medium	0		

Objective 13: Reduce crime and the fear of crime in using transport.

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Exercise due regard of the likely effect of crime, the fear of crime and ASB in residential neighbourhoods and town centres, including car parks, by good design of the streetscape, road layouts, walking and cycling routes and public space as part of new development or specific locations on the highway network. So overall low crime levels continue and so that these areas remain safe places for people to enjoy community pride, self respect and feeling of security in their daily life. Design out crime, fear of crime and ASB in using passenger transport and supporting transport networks to enable people to feel safer when out travelling and encourage the take up of sustainable transport. Good design of public transport waiting facilities, transport hubs and stations and connecting facilities, i.e walking routes, to services so people feel safe when out and to encourage people to travel to places by modes other than the car.

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A4: Improve sustainable access to the countryside		+	+	0	+	+	+	Medium	0		
E1: Invest in transport systems that will create a strong and sustainable economy by addressing economic barriers to growth, in particular access and congestion.		0	0	0	0	0	0	Medium	0	0	Safety improvements through improved design and other actions may encourage people to use alternative modes moving away from reliance on the private motor car. This will help reduce congestion on the County's roads enabling economic activity to function more efficiently. This is not likely to be a significant effect.

Summary

Main Effects of the Plan Objectives and Polices

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.

Encouraging the take up of sustainable transport modes and improving design of connecting facilities and walking routes may reduce the number of private car journeys, so may reduce emissions and have a positive effect on soil quality; however the effect is not likely to be significant. The policies may help to reduce land take in the long term for road schemes.

Encouraging the take up of sustainable transport modes and improving design of connecting facilities and walking routes may reduce the amount traffic flows benefiting in the long term biodiversity. However increased lighting may adversely affect habitat connectivity and may also disrupt foraging activity of nocturnal species, for example BAP species such as bat species (Lesser Horseshoe, Daubentons etc.).

Making active travel options more attractive through improving design will increase user up take reducing the amount of motorised traffic users. This in turn will reduce noise nuisance from traffic flows and improve air quality by easing congestion and volume of traffic. Lowering traffic speeds will also help to reduce traffic noise levels. However, certain traffic calming methods (such as road humps) may have an adverse local effect on air and noise emissions by causing traffic to flow more erratically, reducing engine efficiency.

Making active travel options more attractive through improving design will reduce the amount of motorised traffic users. Also improving design of road layouts, transport hubs, stations and connecting facilities will encourage more people to use sustainable modes of transport helping to reduce greenhouse gas emissions.

Improving design of the streetscape, road layouts, walking and cycling routes and public space could potentially improve and help to protect specific landscapes/townscapes. Also encouraging and improving sustainable transport links could help reduce traffic flows improving sense of place and distinctiveness. However 'good design' principles must consider all environmental issues and come to a compromise in decision making.

Addressing community fears about irresponsible driving of others that may result in road traffic collision due to excessive or inappropriate speed, incorrect use of mobile phones or driving whilst under the influence of alcohol or drugs, will all help to reduce deaths and serious injury on the County's roads. There will be a direct positive effect on the achievement of this SEA Objective through implementation of the above policies

There will be a direct positive effect on the achievement of SEA Objective HSC2 through implementation of the above policies.

Encouraging the take up of sustainable transport modes and improving safety and design of connecting facilities and walking routes will help to promote healthier lifestyles.

Accessibility will be improved by better design of new developments, streetscapes, road layouts, walking and cycling routes, transport hubs and stations. Improving safety throughout the public transport network will encourage more people to use it, especially more vulnerable groups such as the elderly and disabled.

Safety improvements through improved design and other actions will encourage people to use alternative modes moving away from reliance on the private motor car. This will help reduce congestion on the County's roads enabling economic activity to function more efficiently.

Cumulative Effects of the Plan Objectives and Policies

- Potential biodiversity benefits from improved water, air and soil quality.
- Landscapes will potential benefit from the protection of areas of good quality agricultural land.
- A reduction in noise has the potential to beneficially affect personal wellbeing, both through reducing nuisance and improving tranquillity and setting of landscapes.
- Reducing air pollution will increase the quality of landscapes and townscapes and their associated biodiversity. There will also be potential improvement of soil acidity levels.
- A reduction in noise has the potential to beneficially affect personal wellbeing, both through reducing nuisance and improving tranquillity and setting of landscapes.
- Reducing traffic levels and therefore noise disturbance may also be of benefit to biodiversity.
- Reducing air pollution will increase the quality of landscapes and townscapes and their associated biodiversity. Potential improvement of soil acidity levels.
- A reduction in traffic flows and vehicle numbers should benefit biodiversity through a corresponding reduction in noise levels and poor air quality near improved routes. There is also likely to be a reduction in greenhouse gas emissions and improvements to landscape tranquillity and setting through reduced traffic flows.

Potential Mitigation and Recommendations for the LTP

- Safeguard good quality agricultural land.
- For biodiversity, apply the mitigation hierarchy of avoidance, reduction and compensation following identification of effects through appropriate levels of environmental impact assessment.
- Ensure lighting design and implementation takes full account of the implications and effects on ecology and landscape/townscape and cultural heritage setting.
- Consider sensor activated lighting for rural bus stops – this will have potential benefits in terms of landscape, climate change mitigation/adaptation and biodiversity. Procurement or specification of low-UV lighting types with high directionality (e.g. LED) where lighting is required will reduce the effect on foraging wildlife and the tranquillity of the landscape.
- Promote opportunities for improving habitat connectivity and ecological coherence as part of development approval process.
- Travel plans and local initiatives to reduce poor air quality should seek to support reductions in existing AQMAs where appropriate. Include air quality monitoring and targets within the 3-year action plans.
- Travel plans should also seek to prioritise use of sustainable and low carbon transport over the private car.
- Noise monitoring and targets within the 3 year action plans Introduction of noise reducing materials in any construction.
- Establishing long-term objectives and opportunities in tandem with short-term action through a 3-year action plan including the development of an annual work programme and a system to monitor progress, will help to implement the above polices and help identify areas which need focusing on.
- Consider sensor activated or solar lighting for rural bus stops. Consider different lighting types in terms of energy demand.
- Prioritise use of sustainable and low carbon transport over the private car.
- Ensure landscape, townscape and cultural heritage setting is fully taken into account in design of new facilities or facilities improvements.
- Consider measures for reducing traffic speeds and creation of traffic free routes where possible.
- Consider methods for traffic calming that facilitate smooth traffic flow.
- Target user groups at greatest risk of being in a road traffic collision.

Objective 14: Improving road safety

Policies as of 8/10/2010:

Through the Casualty Reduction Strategy we will seek to take forward the following engineering programmes;

(1) Devise a programme of activity to specifically target fatal injuries recognising that the rate of decline for fatal's has been significantly less than the decline in KSI's. in recent years. Early focus in LTP3 will include motorcycles fatalities and urban/rural roads,

(2) There is an upward trend in rural and urban motorcycle fatalities on our roads, Indications suggest that measures introduced elsewhere to reduce casualties are having less effect on motorcycle casualties, we will Devise programmes to treat the upward trend of motorcycle fatalities involving young people, riding smaller bikes, on our urban roads and older people, riding larger bikes, on our rural roads,

(3) Whilst rural KSI's have declined in numbers in recent years, urban ksi's have broadly stayed the same. We will devise new approaches to address urban KSI's particularly VRU's on busy roads; intervention programmes on rural roads, with exception to high powered m/c will continue.

(4) We will continue to devise intervention programmes on routes using passive safety measures that are designed to reduce the severity of any injuries should a crash occur rather than to prevent the collision itself.

(5) In the final years of LTP2, a review of all A and B road speed limits was undertaken in line with the DfT circular 01/2006, "Setting Local Speed Limits" This will result in many of our rural speed limits being revised, either in the level of the limit or in the extent of the restriction which it is hoped will result in some casualty reduction benefit.

(6) We will continue to ensure that speed limits are correctly set and signed and will work with the Devon and Cornwall Safety Camera Partnership to ensure that satisfactory infrastructure exists to support enforcement activity.

Through the Casualty Reduction Strategy the following education, training & awareness programme will be taken forward as encompassed by the terms of reference for the CRCRP Delivery Group; these are; (i) Review and interpret relevant data and casualty trends as agreed by the CRCRP to influence activity, (ii) Develop initiatives, programmes and events based on casualty data and evidence led practice which is appropriately monitored and evaluated, (iii)

Identify and provide, or source, specific training for relevant personnel from partner organisations in order that they can disseminate accurate and timely road safety messages effectively and achieve a consistent approach, (iv) Plan

programmes of activity, organise events and implement initiatives to reduce collisions/casualties (v) Establish a central database for all CRCRP partners to be able to access to facilitate evidence based programmes.

We will continue to review our approach to mobile and fixed safety camera's at locations based on road safety data and new developments in camera technology; Throughout the life of camera technology over the last 30 years decisions on enforcement have been based on the casualty history of the sites under consideration, but as the use wet film technology comes to the end of its life in the next few years at fixed camera sites consideration will need to be given not only to the value of money to either replace with digital technology, but indeed a consideration of the alternatives which are the use of average speed camera's or increased use of mobile camera's. Whilst both options make strong cases, average speed camera's whilst bringing about a high level of enforcement are very expensive and unlikely to be cost effective, whereas mobile enforcement either at a wide range of sites using random road watch approach or a concentration on high risk routes is most likely to be more effective in casualty reduction terms in the short term.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects Identify other receptors with interrelated effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long				
WSM1: Minimise the impact of the transport network on the quality and quantity of the county's water resources.	19 surface sources operated by South West Water. Total of 79,813 million litres. In the South West river basin district 23 per cent of waters meet good ecological status and 41 per cent do not meet good status (449 water bodies). The majority of water bodies that fail to meet good status fail because of the phosphorus, fish and diatom elements of classification. Surface runoff from transport routes could be affecting water quality.	0	0	0	0	0	0	Medium	0	0	These policies are not likely to have a significant effect on this objective.
WSM2: Reduce contamination and safeguard soil structure quality and quantity from transport systems and infrastructure.	Shillet is most common soil type. Tend to be low in phosphates with impeded drainage, are difficult to manage in winter, but are highly productive if drained	0	0	0	0	0	0	Medium	0	0	These policies are not likely to have a significant effect on this objective.

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(4) We will continue to devise intervention programmes on routes using passive safety measures that are designed to reduce the severity of any injuries should a crash occur rather than to prevent the collision itself.

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	properly. 0.1% of agricultural land is Grade 1, 8% is Grade 2 and 61.2% is Grade 3a and 3b, the remainder is urban or poor. Contaminated land has largely arisen due to historical industrial activity, mainly mining.										
WSM3: Minimise the impact of transport on mineral resources.	Minerals currently exploited in the county are granite for aggregates and building stones, china clay, slate and sandstone. 2009 production of primary aggregates in Cornwall was around 1.43 million tonnes; this is principally from 12 quarries throughout the County. China clay production contributes around £100 million to the UK balance of payments and makes a	0	0	0	0	0	0	Medium	0	0	These policies are not likely to have a significant effect on this objective.

Objective 14: Improving road safety

Policies as of 8/10/2010:

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		Local	County wide	Trans-boundary	Short	Medium	Long				
	significant contribution to Cornwall's local economy each year. 2009 production of china clay was estimated to be in the region of 1.6 million tonnes.										
WSM4: Minimise the waste produced by transport systems and infrastructure.	Construction and demolition waste is the largest waste stream, 452,000 tonnes produced in 2008/09, 39% sent to landfill. Municipal waste arising 314,311. 63% sent to landfill. Need to reduce landfilling. w Planning appeal logged for 240,000 tonne capacity energy from waste plant.	0	0	0	0	0	0	Medium	0	0	These policies are not likely to have a significant effect on this objective.
BI1: Conservation and enhancement of protected habitats and species and making a positive contribution to	41 BAP habitats found in Cornwall covering some 19652 ha overall. There are currently 496 County Wildlife Sites in	+	+	0	+	+	+	Low	Helping to support biodiversity can have positive effects on place distinctiveness and individual wellbeing	Mitigation hierarchy of avoidance, reduction and compensation. Protection of designated sites.	Reducing speed limits across the country and extending restriction zones will potentially benefit biodiversity through a reduction in disturbance and death by traffic. It may also indirectly support habitat connectivity making

Objective 14: Improving road safety

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the local BAP.	Cornwall covering nearly 33,000 hectares or 10% of the county's land area. 166 Sites of Special Scientific Interest. 17 SACs, 3 Inshore Marine cSACs and 16 SPAs.	+	+	0	0	+	+	Low		Policy for development should aim to avoid adverse effects and identify opportunities for improving habitat connectivity and ecological coherence.	road corridors more attractive to wildlife.
BI2: Improvement of ecological coherence, habitat connectivity and climate change resilience and adaption.	2 AQMAs; Bodmin AQMA and Camborne, Pool and Redruth.AQMA. Pollutants of most concern are traffic-related fine airborne particulate matter and Nitrogen dioxide. A third AQMA is being considered for Tideford, again traffic related pollution. Air quality in the county is generally good.	+/-	+/-	+/-	+/-	+/-	+/-	Medium	An increase in air pollution could have negative effects on place distinctiveness, sense of place and health.	Air quality monitoring programmes within compact developments Concentration on AQMA improvements. Policy must ensure that development does not make air pollution worse in current AQMAs. Seek to actively promote sustainable modes and encourage active travel. Design guides should promote sustainable transport modes where possible.	Reducing traffic speeds below 60mph results in an improvement of air quality, however, a reduction in vehicles speeds below 25mph results in a slight increase in emissions as speed decreases.

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(5) In the final years of LTP2, a review of all A and B road speed limits was undertaken in line with the DfT circular 01/2006, "Setting Local Speed Limits" This will result in many of our rural speed limits being revised, either in the level of the limit or in the extent of the restriction which it is hoped will result in some casualty reduction benefit.

(6) We will continue to ensure that speed limits are correctly set and signed and will work with the Devon and Cornwall Safety Camera Partnership to ensure that satisfactory infrastructure exists to support enforcement activity.

Through the Casualty Reduction Strategy the following education, training & awareness programme will be taken forward as encompassed by the terms of reference for the CRCRP Delivery Group; these are; (i) Review and interpret relevant data and casualty trends as agreed by the CRCRP to influence activity, (ii) Develop initiatives, programmes and events based on casualty data and evidence led practice which is appropriately monitored and evaluated, (iii)

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programmes of activity, organise events and implement initiatives to reduce collisions/casualties (v) Establish a central database for all CRCRP partners to be able to access to facilitate evidence based programmes.

We will continue to review our approach to mobile and fixed safety camera's at locations based on road safety data and new developments in camera technology; Throughout the life of camera technology over the last 30 years decisions on enforcement have been based on the casualty history of the sites under consideration, but as the use wet film technology comes to the end of its life in the next few years at fixed camera sites consideration will need to be given not only to the value of money to either replace with digital technology, but indeed a consideration of the alternatives which are the use of average speed camera's or increased use of mobile camera's. Whilst both options make strong cases, average speed camera's whilst bringing about a high level of enforcement are very expensive and unlikely to be cost effective, whereas mobile enforcement either at a wide range of sites using random road watch approach or a concentration on high risk routes is most likely to be more effective in casualty reduction terms in the short term.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects Identify other receptors with interrelated effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long				
										Ensure LTP proposals do not create new areas of exceedence.	
N1: Reduce the noise impact of the transport system.	Cornwall Quality of Life Survey indicated that 18.3% of respondents, in their opinion, thought vehicle noise was a 'very big' or 'fairly big' problem when considering contributors to neighbourhood and environmental problems. Over 40% felt it was 'not a very big problem' and fewer than 40% felt it was 'not a problem at all'.	+	+	0	+	+	+	Medium	Reducing noise levels could have a positive effect on place distinctiveness, sense of place and health.	Noise monitoring. Introduction of noise reducing materials in any construction. Seek to actively promote sustainable modes and encourage active travel. Design guides should promote road safety.	Reducing traffic speeds will potentially help reduce traffic noise levels, especially through urban centres.
CC1: Mitigation: reduce the contribution of transportation to greenhouse gas emissions.	8.16 tonnes of CO ₂ were released per capita in Cornwall in 2006. Lowest per capita emissions were found in the Isles of Scilly, with 5.73 tonnes. Road transport accounted	+/-	+/-	+/-	+/-	+/-	+/-	Low	An increase in air pollution could have negative effects on place distinctiveness, sense of place and health.	Air quality monitoring programmes within compact developments Concentration on AQMA improvements. Policy must ensure that development does not	Reducing traffic speeds below 60mph results in an improvement of air quality, however, a reduction in vehicles speeds below 25mph results in a slight increase in emissions as speed decreases.

Objective 14: Improving road safety

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(2) There is an upward trend in rural and urban motorcycle fatalities on our roads, Indications suggest that measures introduced elsewhere to reduce casualties are having less effect on motorcycle casualties, we will Devise programmes to treat the upward trend of motorcycle fatalities involving young people, riding smaller bikes, on our urban roads and older people, riding larger bikes, on our rural roads,

(3) Whilst rural KSI's have declined in numbers in recent years, urban ksi's have broadly stayed the same. We will devise new approaches to address urban KSI's particularly VRU's on busy roads; intervention programmes on rural roads, with exception to high powered m/c will continue.

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	for 29% of CO ₂ emissions in Cornwall for 2006. Two thirds of Cornish road transport carbon emissions are from private cars.									make air pollution worse in current AQMAs. Seek to actively promote sustainable modes and encourage active travel. Design guides should promote road safety.	
CC2: Adaptation: minimise the vulnerability of the transport infrastructure to climate change.	DEFRA and the Environment Agency have identified which coastal sites and features are most at risk within the next 20 years of sea level change. Mullion Harbour and Godrevy feature in the high risk category and Boscastle Harbour falls into the medium risk category. Over the next 100 years around 15-30 km of additional roads in Cornwall are liable to become inundated by extreme tide levels.	0	0	0	0	0	0	Medium	0	0	These policies are not likely to have a significant effect on this objective.

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	3-5km of these are A roads, 2-4km are B roads, 5-9km C roads and 6-11km are unclassified roads.										
LTCH1: Create places, spaces and buildings that enhance local distinctiveness, appearance and sense of place.	12,490 Listed Buildings, 1,872 Scheduled Monuments, 145 Conservation Areas (4070 ha)	+	+	0	+	+		Medium	Improving landscapes/townscapes through a reduction in speed and road safety incentives can enhance place distinctiveness	Landscape and cultural heritage assessments on proposed developments	Reducing traffic speeds through landscapes and townscapes will benefit both and help to enhance local place distinctiveness. Fast, regular traffic flows can often detract attention away from environments affecting the sense of place. Reducing traffic speeds helps to create a more natural environment.
LTCH2: Protect and enhance buildings, sites, structures and heritage assets that contribute to the quality of countryside, townscape and the public realm.	36 Registered Parks and Gardens (3720 ha), 2 Registered Battle Fields (115 ha), Cornish Mining World Heritage Site18, 222 ha; 5. 5% of Cornwall.	+	+	0	0	+		Medium			
LTCH3: Protect and enhance landscape character and local distinctiveness including Areas of Outstanding Natural Beauty and the		+	+	0	0	+		Medium			

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World Heritage Site.											
HSC1: Reduce the number of people killed and seriously injured in road collisions.	KSI total was 15% below the national baseline in 2006. Targets suggest a reduction of 30% by 2010/11 in KSI incidents.	++	++	0	0	++	++	Medium	0	Target user groups at greatest risk of being in a road traffic collision.	The policy directly supports this SEA objective.
HSC2: Reduce levels crime and fear of crime.	Generally centred on speeding offences, drink driving offences and mobile phone use. 2005 there were 11,964 speeding offences compared to 6,289 in 2008.	++	++	0	0	++	++	Medium	Reducing levels of crime will enhance place distinctiveness and individual wellbeing. It will also support economic growth by making place more attractive for investment.	Consider sensor activated or solar lighting for rural bus stops.	Improving road safety and updating the County's speed cameras will help reduce traffic crime levels. Ensuring satisfactory infrastructure exists to support enforcement activities, especially concerning speed limits, will support this SEA objective.
HSC3: Encourage healthier lifestyles particularly by encouraging more people to walk and cycle.	The health of people in Cornwall is generally better than the England average. Both male and female life expectancies are higher than the England average. Over the last ten years early death rates from heart disease and stroke as well as early death rates from cancer have been declining	+	+	0	0	+	+	Low		Seek to actively promote sustainable modes and encourage active travel. Design guides should promote road safety.	Making the County's roads safer may encourage more people to uptake active travel options improving personal health.

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		Local	County wide	Trans-boundary	Short	Medium	Long				
	and remain below the England average.										
A1: Improve accessibility of jobs, shops and other amenities for rural communities.		0	0	0	0	0	0	Medium	0	0	These policies are not likely to have a significant effect on this objective.
A2: Reduce the community severance effects of infrastructure.		0	0	0	0	0	0	Medium	0	0	These policies are not likely to have a significant effect on this objective.
A3: Provide an inclusive transport network that meets the needs of society and specific groups such as the disabled and elderly.		0	0	0	0	0	0	Medium	0	0	These policies are not likely to have a significant effect on this objective.
A4: Improve sustainable access to the countryside		0	0	0	0	0	0	Medium	0	0	These policies are not likely to have a significant effect on this objective.
E1: Invest in transport systems that will create a strong and sustainable economy by		0	0	0	0	0	0	Medium	0.	0	These policies are not likely to have a significant effect on this objective.

Summary

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. Further detail is provided below.

Main Effects of the Plan Objectives and Policies

Reviewing all A and B road speed limits and extending restriction areas will potentially help reduce the amount of collisions on the County's roads. This will help to reduce traffic accidents. It could also benefit biodiversity and support habitat connectivity making road corridors more attractive to wildlife.

Reducing traffic speeds below 60mph results in an improvement of air quality, however, a reduction in vehicles speeds below 25mph results in a slight increase in emissions as speed decreases. This has resulted in SEA objectives A1 and CC1 being having a potentially mixed effect.

Reducing traffic speeds will help protect and enhance existing landscapes/townscapes and cultural heritage setting.

The above policies will directly support SEA objectives HSC1 and 2. The above initiatives are directly aimed at improving road safety and reducing the amount of fatalities and serious injuries occurring on the County's roads. Improving and educating people on road safety will improve the transport network efficiency. Reducing speeds will potentially reduce congestion levels making access easier, especially during peak times. Making the County's roads safer will encourage more people to uptake active travel options potentially improving personal health. Improving road safety and updating the County's speed cameras will directly support reducing traffic crime levels. Ensuring satisfactory infrastructure exists to support enforcement activities, especially concerning speed limits, will support SEA Objectives HSC1, 2 and 3.

Improving access to local communities through better road safety will encourage economic growth in those areas and providing mixed developments will help spread economic activity throughout the County.

Cumulative Effects of the Plan Objectives and Policies

Helping to support biodiversity can have positive effects on place distinctiveness and individual wellbeing.

An increase in air pollution could have negative effects on place distinctiveness, sense of place and health.

Improving economic growth through the above policies is likely to improve personal wellbeing with more people having access to work and perhaps earning more money
There are likely to be economic benefits from safer access to services and amenities.

Reducing levels of crime will enhance place distinctiveness and individual wellbeing. It will also support economic growth by making place more attractive for investment.

Landscapes/townscapes enhancement through a reduction in speed and road safety incentives can enhance place distinctiveness.

Potential Mitigation and Recommendations for the LTP

- Ensure road safety focuses on and around areas of retail and amenities.
- Seek to actively promote sustainable modes and encourage active travel.
- Design guides should promote road safety.
- Air quality monitoring programmes within compact developments Concentration on AQMA improvements. Policy must ensure that development does not make air pollution worse in current AQMAs.
- Seek to actively promote sustainable modes and encourage active travel
- Noise monitoring. Introduction of noise reducing materials in any construction.
- Seek to actively promote sustainable modes and encourage active travel.

Objective 15: Reduce noise and air quality impacts

Policies as of 8/10/2010:

Apply design guidelines for new, extended and reconstructed roads, using Environmental Impact Assessments (EIA) or noise impact assessments as required, to identify, evaluate and select suitable solutions to addressing noise problems where there is scope to do so.

Use the land use planning process to apply best design practice for new developments to implement noise control measures for any development that may be affected by road traffic noise.

Seek to minimise the impacts of transport related air and noise pollution through appropriate maintenance practices in accordance with Highway Maintenance Plan and Council Fleet vehicle plan.

Use land use and planning processes to apply best practices for new developments to mitigate against the potential impact of poor air quality from road traffic.

Continue to monitor air quality in and around our towns and take the opportunities to address local air quality hotspots as they present themselves on an individual basis or as part of an AQAP.

Seek to address noise levels on those affected lengths of transport corridor as established by the strategic noise maps individually or as part of Noise Action Plans.

Continue to develop solutions to address transport related air quality problems identified in the AQAP and contribute to the development of measures to improve air quality in the designated AQMAs.

Investigate opportunities to control the movement of traffic along our transport corridors and in our town centres.

Continue to implement the Freight Transport Strategy and Lorry Management Strategy to ensure the efficient management of heavy goods vehicle movement around the county to cause the least noise disturbance to nearby residents.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects Identify other receptors with interrelated effects	Potential mitigation	Commentary
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WSM1: Minimise the impact of the transport network on the quality and quantity of the county's water resources.	19 surface sources operated by South West Water. Total of 79,813 million litres. In the South West river basin district 23 per cent of waters meet good ecological status and 41 per cent do not meet good status (449 water bodies). The majority of water bodies that fail to meet good status fail because of the phosphorus, fish and diatom elements of classification. Surface runoff from transport routes could be affecting water quality.	+	+	0	+	+	+	Low	Improved water quality will benefit biodiversity.	Consideration of water quality effects through project level EIA of qualifying schemes.	Improving air quality levels will potentially have an indirect benefit on water resources due to reduced acidification
WSM2: Reduce contamination and safeguard soil structure quality and quantity from transport systems and infrastructure.	Shillet is most common soil type. Tend to be low in phosphates with impeded drainage, are difficult to manage in winter, but are highly productive if drained properly. 0.1% of agricultural land is Grade 1, 8% is Grade 2 and 61.2% is Grade 3a and 3b, the remainder is urban or poor. Contaminated land has largely arisen due to historical industrial activity, mainly mining.	+	+	0	+	+	+	Low	Improvements to soil quality will benefit biodiversity	Consideration of land take, land use, severance, soil quality and contamination effects through project level EIA of qualifying schemes.	Improving air quality levels will potentially have an indirect benefit on soil resources due to reduced acidification.

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WSM3: Minimise the impact of transport on mineral resources.	Minerals currently exploited in the county are granite for aggregates and building stones, china clay, slate and sandstone. 2009 production of primary aggregates in Cornwall was around 1.43 million tonnes; this is principally from 12 quarries throughout the County. China clay production contributes around £100 million to the UK balance of payments and makes a significant contribution to Cornwall's local economy each year. 2009 production of china clay was estimated to be in the region of 1.6 million tonnes.	0	0	0	0	0	0	Medium	0	0	These policies are not likely to have a significant effect on this objective.
WSM4: Minimise the waste produced by transport systems and infrastructure.	Construction and demolition waste is the largest waste stream, 452,000 tonnes produced in 2008/09, 39% sent to landfill. Municipal waste arising 314,311. 63% sent to landfill. Need to reduce landfilling. Planning appeal logged for 240,000 tonne capacity energy from waste plant.	0	0	0	0	0	0	Medium	0	0	These policies are not likely to have a significant effect on this objective.
BI1: Conservation and enhancement of	41 BAP habitats found in Cornwall covering some	+	+	0	+	+	+	Low	Helping to support biodiversity can have positive effects on	Consideration of ecology and biodiversity effects	Reducing noise levels through the

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Seek to minimise the impacts of transport related air and noise pollution through appropriate maintenance practices in accordance with Highway Maintenance Plan and Council Fleet vehicle plan.

Use land use and planning processes to apply best practices for new developments to mitigate against the potential impact of poor air quality from road traffic.

Continue to monitor air quality in and around our towns and take the opportunities to address local air quality hotspots as they present themselves on an individual basis or as part of an AQAP.

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Continue to implement the Freight Transport Strategy and Lorry Management Strategy to ensure the efficient management of heavy goods vehicle movement around the county to cause the least noise disturbance to nearby residents.

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		Local	County wide	Trans-boundary	Short	Medium	Long		Identify other receptors with interrelated effects		
protected habitats and species and making a positive contribution to the local BAP.	19652 ha overall. There are currently 496 County Wildlife Sites in Cornwall covering nearly 33,000 hectares or 10% of the county's land area.								place distinctiveness and individual wellbeing	through project level EIA of qualifying schemes.	Freight Transport Strategy and Lorry Management Strategy and using best design practice for transport infrastructure developments will benefit biodiversity through less noise nuisance. There could also be long term benefits through improved air quality.
BI2: Improvement of ecological coherence, habitat connectivity and climate change resilience and adaptation.	166 Sites of Special Scientific Interest. 17 SACs, 3 Inshore Marine cSACs and 16 SPAs.	0	0	0	0	0	0	Low	0	Integrate opportunities for habitat corridor creation and enhancement where appropriate through schemes.	
AQ1: Reduce social, economic and environmental costs of transport on air quality.	2 AQMAs; Bodmin AQMA and Camborne, Pool and Redruth.AQMA. Pollutants of most concern are traffic-related fine airborne particulate matter and Nitrogen dioxide. A third AQMA is being considered for Tideford, again traffic related pollution. Air quality in the county is generally good.	++	++	+	++	++	++	Medium	Improving air quality will improve personal health and make townscape more attractive to live in.	Air quality monitoring programmes within compact developments Concentration on AQMA improvements. Policy must ensure that development does not make air pollution worse in current AQMAs. Seek to actively promote sustainable modes and encourage active travel. Design guides should promote sustainable transport modes where possible. Consideration of air quality effects through project level EIA of qualifying schemes.	The policy directly supports this SEA objective.
N1: Reduce the noise	Cornwall Quality of Life	++	++	++	++	++	++	Medium	Reducing noise levels will benefit	Noise monitoring.	The policy directly supports this SEA

Objective 15: Reduce noise and air quality impacts

Policies as of 8/10/2010:

Apply design guidelines for new, extended and reconstructed roads, using Environmental Impact Assessments (EIA) or noise impact assessments as required, to identify, evaluate and select suitable solutions to addressing noise problems where there is scope to do so.

Use the land use planning process to apply best design practice for new developments to implement noise control measures for any development that may be affected by road traffic noise.

Seek to minimise the impacts of transport related air and noise pollution through appropriate maintenance practices in accordance with Highway Maintenance Plan and Council Fleet vehicle plan.

Use land use and planning processes to apply best practices for new developments to mitigate against the potential impact of poor air quality from road traffic.

Continue to monitor air quality in and around our towns and take the opportunities to address local air quality hotspots as they present themselves on an individual basis or as part of an AQAP.

Seek to address noise levels on those affected lengths of transport corridor as established by the strategic noise maps individually or as part of Noise Action Plans.

Continue to develop solutions to address transport related air quality problems identified in the AQAP and contribute to the development of measures to improve air quality in the designated AQMAs.

Investigate opportunities to control the movement of traffic along our transport corridors and in our town centres.

Continue to implement the Freight Transport Strategy and Lorry Management Strategy to ensure the efficient management of heavy goods vehicle movement around the county to cause the least noise disturbance to nearby residents.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long		Identify other receptors with interrelated effects		
impact of the transport system.	Survey indicated that 18.3% of respondents, in their opinion, thought vehicle noise was a 'very big' or 'fairly big' problem when considering contributors to neighbourhood and environmental problems. Over 40% felt it was 'not a very big problem' and fewer than 40% felt it was 'not a problem at all'.								biodiversity, landscapes/townscapes and improve personal wellbeing.	Introduction of noise reducing materials in any construction. Seek to actively promote sustainable modes and encourage active travel. Design guides should promote sustainable transport modes where possible. Consideration of noise effects through project level EIA of qualifying schemes.	objective.
CC1: Mitigation: reduce the contribution of transportation to greenhouse gas emissions.	8.16 tonnes of CO ₂ were released per capita in Cornwall in 2006. Lowest per capita emissions were found in the Isles of Scilly, with 5.73 tonnes. Road transport accounted for 29% of CO ₂ emissions in Cornwall for 2006. Two thirds of Cornish road transport carbon emissions are from private cars.	++	++	+	++	++	++	Medium	Improving air quality will improve personal health and make townscape more attractive to live in.	Air quality monitoring programmes within compact developments Concentration on AQMA improvements. Policy must ensure that development does not make air pollution worse in current AQMAs. Seek to actively promote sustainable modes and encourage active travel. Design guides should promote sustainable transport modes where possible.	The policy indirectly supports this SEA objective.

Objective 15: Reduce noise and air quality impacts

Policies as of 8/10/2010:

Apply design guidelines for new, extended and reconstructed roads, using Environmental Impact Assessments (EIA) or noise impact assessments as required, to identify, evaluate and select suitable solutions to addressing noise problems where there is scope to do so.

Use the land use planning process to apply best design practice for new developments to implement noise control measures for any development that may be affected by road traffic noise.

Seek to minimise the impacts of transport related air and noise pollution through appropriate maintenance practices in accordance with Highway Maintenance Plan and Council Fleet vehicle plan.

Use land use and planning processes to apply best practices for new developments to mitigate against the potential impact of poor air quality from road traffic.

Continue to monitor air quality in and around our towns and take the opportunities to address local air quality hotspots as they present themselves on an individual basis or as part of an AQAP.

Seek to address noise levels on those affected lengths of transport corridor as established by the strategic noise maps individually or as part of Noise Action Plans.

Continue to develop solutions to address transport related air quality problems identified in the AQAP and contribute to the development of measures to improve air quality in the designated AQMAs.

Investigate opportunities to control the movement of traffic along our transport corridors and in our town centres.

Continue to implement the Freight Transport Strategy and Lorry Management Strategy to ensure the efficient management of heavy goods vehicle movement around the county to cause the least noise disturbance to nearby residents.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects Identify other receptors with interrelated effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long				
										Consideration of air quality effects through project level EIA of qualifying schemes.	
CC2: Adaptation: minimise the vulnerability of the transport infrastructure to climate change.	DEFRA and the Environment Agency have identified which coastal sites and features are most at risk within the next 20 years of sea level change. Mullion Harbour and Godrevy feature in the high risk category and Boscastle Harbour falls into the medium risk category. Over the next 100 years around 15-30 km of additional roads in Cornwall are liable to become inundated by extreme tide levels. 3-5km of these are A roads, 2-4km are B roads, 5-9km C roads and 6-11km are unclassified roads.	0	0	0	0	0	0	Medium	0	0	These policies are not likely to have a significant effect on this objective.
LTCH1: Create places, spaces and buildings that enhance local distinctiveness, appearance and sense of place.	12,490 Listed Buildings, 1,872 Scheduled Monuments, 145 Conservation Areas (4070 ha)	+	+	0	+	+	+	Low	Improving landscapes will benefit biodiversity, place distinctiveness and personal wellbeing.	Consideration of Landscape, townscape and cultural heritage effects through project level EIA of qualifying schemes.	Noise action plans can be used to protect and enhance existing landscapes. Aiming to reduce traffic noise across the county, especially within urban areas, will enhance place distinctiveness and character. Developing measures to improve air quality levels will improve the public realm and greatly improve townscapes. Reducing noise levels will increase sense of tranquillity.
LTCH2: Protect and enhance buildings, sites, structures and heritage assets that contribute to	36 Registered Parks and Gardens (3720 ha), 2 Registered Battle Fields (115 ha), Cornish Mining World Heritage Site 18, 222 ha; 5.	+	+	0	+	+	+	Low			

Objective 15: Reduce noise and air quality impacts

Policies as of 8/10/2010:

Apply design guidelines for new, extended and reconstructed roads, using Environmental Impact Assessments (EIA) or noise impact assessments as required, to identify, evaluate and select suitable solutions to addressing noise problems where there is scope to do so.

Use the land use planning process to apply best design practice for new developments to implement noise control measures for any development that may be affected by road traffic noise.

Seek to minimise the impacts of transport related air and noise pollution through appropriate maintenance practices in accordance with Highway Maintenance Plan and Council Fleet vehicle plan.

Use land use and planning processes to apply best practices for new developments to mitigate against the potential impact of poor air quality from road traffic.

Continue to monitor air quality in and around our towns and take the opportunities to address local air quality hotspots as they present themselves on an individual basis or as part of an AQAP.

Seek to address noise levels on those affected lengths of transport corridor as established by the strategic noise maps individually or as part of Noise Action Plans.

Continue to develop solutions to address transport related air quality problems identified in the AQAP and contribute to the development of measures to improve air quality in the designated AQMAs.

Investigate opportunities to control the movement of traffic along our transport corridors and in our town centres.

Continue to implement the Freight Transport Strategy and Lorry Management Strategy to ensure the efficient management of heavy goods vehicle movement around the county to cause the least noise disturbance to nearby residents.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects Identify other receptors with interrelated effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long				
the quality of countryside, townscape and the public realm.	5% of Cornwall.										
LTCH3: Protect and enhance landscape character and local distinctiveness including Areas of Outstanding Natural Beauty and the World Heritage Site.		+	+	0	+	+	+	Low			
HSC1: Reduce the number of people killed and seriously injured in road collisions.	KSI total was 15% below the national baseline in 2006. Targets suggest a reduction of 30% by 2010/11 in KSI incidents.	0	0	0	0	0	0	Medium	0	0	These policies are not likely to have a significant effect on this objective.
HSC2: Reduce levels crime and fear of crime.	Generally centred on speeding offences, drink driving offences and mobile phone use. 2005 there were 11,964 speeding offences compared to 6,289 in 2008.	0	0	0	0	0	0	Medium	0	0	These policies are not likely to have a significant effect on this objective.
HSC3: Encourage healthier lifestyles particularly by encouraging more people to walk and cycle.	The health of people in Cornwall is generally better than the England average. Both male and female life expectancies are higher than the England average. Over the last ten years early death rates from heart disease and stroke as well as early death rates from cancer have been declining and remain below the England	+	+	0	+	+	+	Medium	0	Promote active travel as a tool for reducing noise and improving air quality levels.	Improving air quality levels will help improve individual health.

Objective 15: Reduce noise and air quality impacts

Policies as of 8/10/2010:

Apply design guidelines for new, extended and reconstructed roads, using Environmental Impact Assessments (EIA) or noise impact assessments as required, to identify, evaluate and select suitable solutions to addressing noise problems where there is scope to do so.

Use the land use planning process to apply best design practice for new developments to implement noise control measures for any development that may be affected by road traffic noise.

Seek to minimise the impacts of transport related air and noise pollution through appropriate maintenance practices in accordance with Highway Maintenance Plan and Council Fleet vehicle plan.

Use land use and planning processes to apply best practices for new developments to mitigate against the potential impact of poor air quality from road traffic.

Continue to monitor air quality in and around our towns and take the opportunities to address local air quality hotspots as they present themselves on an individual basis or as part of an AQAP.

Seek to address noise levels on those affected lengths of transport corridor as established by the strategic noise maps individually or as part of Noise Action Plans.

Continue to develop solutions to address transport related air quality problems identified in the AQAP and contribute to the development of measures to improve air quality in the designated AQMAs.

Investigate opportunities to control the movement of traffic along our transport corridors and in our town centres.

Continue to implement the Freight Transport Strategy and Lorry Management Strategy to ensure the efficient management of heavy goods vehicle movement around the county to cause the least noise disturbance to nearby residents.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects Identify other receptors with interrelated effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long				
	average.										
A1: Improve accessibility of jobs, shops and other amenities for rural communities.		0	0	0	0	0	0	Medium	0	0	These policies are not likely to have a significant effect on this objective.
A2: Reduce the community severance effects of infrastructure.		0	0	0	0	0	0	Medium	0	0	These policies are not likely to have a significant effect on this objective.
A3: Provide an inclusive transport network that meets the needs of society and specific groups such as the disabled and elderly.		0	0	0	0	0	0	Medium	0	0	These policies are not likely to have a significant effect on this objective.
A4: Improve sustainable access to the countryside		0	0	0	0	0	0	Medium	0	0	These policies are not likely to have a significant effect on this objective.
E1: Invest in transport systems that will create a strong and sustainable economy by addressing economic barriers to growth, in particular access and congestion.		0	0	0	0	0	0	Medium	0	0	These policies are not likely to have a significant effect on this objective.

Summary

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. Further detail is provided below.

Main Effects of the Plan Objectives and Policies

Reducing noise levels through the Freight Transport Strategy and Lorry Management Strategy and using best design practice for transport infrastructure developments will benefit biodiversity through less noise nuisance. There could also be long term benefits through improved air quality.

The above policy directly supports SEA objectives AQ1 and N1 and indirectly supports CC1.

Noise action plans can be used to protect and enhance existing landscapes. Aiming to reduce traffic noise across the county, especially within urban areas, will enhance place distinctiveness and character. Developing measures to improve air quality levels will improve the public realm and greatly improve townscapes.

Improving air quality levels will help improve individual health.

Much of the above policy is not likely to have a significant effect on the SEA objectives. Policy could be constructed so there are more connections and positives with the objectives. For example, promoting sustainable modes and active travel could positively help in reducing noise levels and improving air quality. It would also support some of the accessibility objectives.

Cumulative Effects of the Plan Objectives and Policies

- Improved water and soil quality as a result of improvements to air quality will benefit biodiversity.
- Helping to support biodiversity can have positive effects on place distinctiveness and individual wellbeing.
- Improving air quality will improve personal health and make townscape more attractive to live in.
- Reducing noise levels will benefit biodiversity, landscapes/townscapes and improve personal wellbeing.
- Improving landscapes will benefit biodiversity, place distinctiveness and personal wellbeing.

Potential Mitigation and Recommendations for the LTP

- Promote active travel as a tool for reducing noise and improving air quality levels.
- Air quality monitoring programmes within compact developments Concentration on AQMA improvements. Policy must ensure that development does not make air pollution worse in current AQMAs.
- Design guides should promote sustainable transport modes where possible.
- Noise monitoring. Introduction of noise reducing materials in any construction.
- Mitigation hierarchy of avoidance, reduction and compensation.
- Protection of designated sites.
- Policy for development should aim to avoid adverse effects and identify opportunities for improving habitat connectivity and ecological coherence.

Goal: Equality of Opportunity

Objective 16: Improving access to employment, education, health and leisure											
Policies as of 8/10/2010: New residential developments must be located on sites where key services can be accessed without the use of private transport. New developments must provide good quality walking and cycling routes to transport infrastructure and, where appropriate, road layouts must enable bus routes through the development. Developers must contribute to the cost of operating public transport services and constructing transport infrastructure associated with new developments. By providing flexible, locally based solutions, we will make transport more effective and efficient in areas where at times of day when patronage is insufficient to support conventional bus services. Work closely with our partners to ensure that essential services are delivered in a way that all social groups and abilities are able to make use of them.											
	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects Identify other receptors with interrelated effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long				
WSM1: Minimise the impact of the transport network on the quality and quantity of the county's water resources.	19 surface sources operated by South West Water. Total of 79,813 million litres. In the South West river basin district 23 per cent of waters meet good ecological status and 41 per cent do not meet good status (449 water bodies). The majority of water bodies that fail to meet good status fail because of the phosphorus, fish and diatom elements of classification. Surface runoff from transport routes could be effecting water quality.	0	0	0	0	0	0	Medium	0	0	These policies are not likely to have a significant effect on this objective.
WSM2: Reduce contamination and safeguard soil structure quality and quantity from transport systems and infrastructure.	Shillet is most common soil type. Tend to be low in phosphates with impeded drainage, are difficult to manage in winter, but are highly productive if drained properly. 0.1% of agricultural land is Grade 1, 8% is Grade 2 and 61.2% is Grade 3a and 3b, the remainder is urban or poor. Contaminated land has largely arisen due to historical industrial activity, mainly mining.	+	0	0	0	+	+	Low	Potential local benefits for biodiversity if soil quality can be improved.	Consideration of land take, land use, severance, soil quality and contamination effects through project level EIA of qualifying schemes.	By reducing the need for the use of private transport there could be potential improvement in localised soil qualities. There is likely to be less acidification from emissions.
WSM3: Minimise the impact of transport on mineral resources.	Minerals currently exploited in the county are granite for aggregates and building stones, china clay, slate and	0	0	0	0	0	0	Medium	0	0	These policies are not likely to have a significant effect on this objective.

Objective 16: Improving access to employment, education, health and leisure

Policies as of 8/10/2010:

New residential developments must be located on sites where key services can be accessed without the use of private transport. New developments must provide good quality walking and cycling routes to transport infrastructure and, where appropriate, road layouts must enable bus routes through the development.

Developers must contribute to the cost of operating public transport services and constructing transport infrastructure associated with new developments.

By providing flexible, locally based solutions, we will make transport more effective and efficient in areas where at times of day when patronage is insufficient to support conventional bus services.

Work closely with our partners to ensure that essential services are delivered in a way that all social groups and abilities are able to make use of them.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects	Potential mitigation	Commentary
	sandstone. 2009 production of primary aggregates in Cornwall was around 1.43 million tonnes; this is principally from 12 quarries throughout the County. China clay production contributes around £100 million to the UK balance of payments and makes a significant contribution to Cornwall's local economy each year. 2009 production of china clay was estimated to be in the region of 1.6 million tonnes.										
WSM4: Minimise the waste produced by transport systems and infrastructure.	Construction and demolition waste is the largest waste stream, 452,000 tonnes produced in 2008/09, 39% sent to landfill. Municipal waste arising 314,311. 63% sent to landfill. Need to reduce landfilling. Planning appeal logged for 240,000 tonne capacity energy from waste plant.	0	0	0	0	0	0	Medium	0	0	These policies are not likely to have a significant effect on this objective.
BI1: Conservation and enhancement of protected habitats and species and making a positive contribution to the local BAP.	41 BAP habitats found in Cornwall covering some 19652 ha overall. There are currently 496 County Wildlife Sites in Cornwall covering nearly 33,000 hectares or 10% of the county's land area. 166 Sites of Special Scientific Interest. 17 SACs, 3 Inland Marine cSACs and 16 SPAs.	+	+	0	0	+	+	Low	0	Consideration of ecology and biodiversity effects through project level EIA of qualifying schemes.	Reducing the volume of private transport travel and providing good quality walking and cycling routes to transports infrastructure as an alternative. may benefit local biodiversity
BI2: Improvement of ecological coherence, habitat connectivity and climate change resilience and adaption.	33,000 hectares or 10% of the county's land area. 166 Sites of Special Scientific Interest. 17 SACs, 3 Inland Marine cSACs and 16 SPAs.	0	0	0	0	0	0	Medium	0	0	These policies are not likely to have a significant effect on this objective.
AQ1: Reduce social, economic and environmental costs of transport on air quality.	2 AQMAs, Bodmin and then Camborne, Pool and Redruth grouped together. Pollutants of most concern	+	+	0	0	+	+	Medium	Biodiversity will benefit from a reduction in air pollution in the long term. Personal health is also likely to improve through	Ensure LTP proposals do not create new areas of exceedence.	Improving bus links through developments and providing good quality walking and cycling routes to transport infrastructure will help reduce the need

Objective 16: Improving access to employment, education, health and leisure

Policies as of 8/10/2010:

New residential developments must be located on sites where key services can be accessed without the use of private transport. New developments must provide good quality walking and cycling routes to transport infrastructure and, where appropriate, road layouts must enable bus routes through the development.

Developers must contribute to the cost of operating public transport services and constructing transport infrastructure associated with new developments.

By providing flexible, locally based solutions, we will make transport more effective and efficient in areas where at times of day when patronage is insufficient to support conventional bus services.

Work closely with our partners to ensure that essential services are delivered in a way that all social groups and abilities are able to make use of them.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects	Potential mitigation	Commentary
	are traffic-related fine airborne particulate matter and Nitrogen dioxide. A third AQMA is being considered for Tideford, again traffic related pollution. Air quality in the county is generally good..								an improvement in air quality and active travel provisions.	Consideration of air quality effects through project level EIA of qualifying schemes.	for private vehicle travel, therefore emissions and congestion will be reduced. This in turn will improve air quality.
N1: Reduce the noise impact of the transport system.	Cornwall Quality of Life Survey indicated that 18.3% of respondents, in their opinion, thought vehicle noise was a 'very big' or 'fairly big' problem when considering contributors to neighbourhood and environmental problems. Over 40% felt it was 'not a very big problem' and fewer than 40% felt it was 'not a problem at all'.	+	+	0	0	+	+	Medium	Long term health and wellbeing will be improved through a reduction in noise nuisance.	Consideration of noise effects through project level EIA of qualifying schemes.	Improving bus links through developments and providing good quality walking and cycling routes to transport infrastructure will help reduce the need for private vehicle travel. This in turn will reduce noise levels through a reduction in traffic flows.
CC1: Mitigation: reduce the contribution of transportation to greenhouse gas emissions.	8.16 tonnes of CO ₂ were released per capita in Cornwall in 2006. Lowest per capita emissions were found in the Isles of Scilly, with 5.73 tonnes. Road transport accounted for 29% of CO ₂ emissions in Cornwall for 2006. Two thirds of Cornish road transport carbon emissions are from private cars.	+	+	0	0	+	+	Medium	0	0	Improving bus links through developments, providing good quality walking and cycling routes to transport infrastructure and making services more efficient, will help reduce the need for private vehicle travel. This in turn will reduce the level of vehicle emissions being produced.
CC2: Adaptation: minimise the vulnerability of the transport infrastructure to climate change.	DEFRA and the Environment Agency have identified which coastal sites and features are most at risk within the next 20 years of sea level change. Mullion Harbour and Godrevy feature in the high risk category and Boscastle Harbour falls into the medium risk category. Over the next 100 years around 15-30 km of	0	0	0	0	0	0	Medium	0	0	These policies are not likely to have a significant effect on this objective.

Objective 16: Improving access to employment, education, health and leisure

Policies as of 8/10/2010:

New residential developments must be located on sites where key services can be accessed without the use of private transport. New developments must provide good quality walking and cycling routes to transport infrastructure and, where appropriate, road layouts must enable bus routes through the development.

Developers must contribute to the cost of operating public transport services and constructing transport infrastructure associated with new developments.

By providing flexible, locally based solutions, we will make transport more effective and efficient in areas where at times of day when patronage is insufficient to support conventional bus services.

Work closely with our partners to ensure that essential services are delivered in a way that all social groups and abilities are able to make use of them.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects	Potential mitigation	Commentary
	additional roads in Cornwall are liable to become inundated by extreme tide levels. 3-5km of these are A roads, 2-4km are B roads, 5-9km C roads and 6-11km are unclassified roads.										
LTCH1: Create places, spaces and buildings that enhance local distinctiveness, appearance and sense of place.	12,490 Listed Buildings, 1,872 Scheduled Monuments, 145 Conservation Areas (4070 ha)	+	+	0	0	+	+	Medium	Helping to preserve the landscapes/townscapes in the long term will also benefit biodiversity.	Consideration of landscape and cultural heritage effects through project level EIA of qualifying schemes..	In the long term landscapes, designated sites and protected buildings are likely to benefit from a greater number of people using public transport and using active travel options. This will decrease traffic flows and limit the need for new routes safeguarding existing assets. Providing better links for cycling and walking and making services more efficient will help to improve townscapes through less congestion and traffic flow.
LTCH2: Protect and enhance buildings, sites, structures and heritage assets that contribute to the quality of countryside, townscape and the public realm.	36 Registered Parks and Gardens (3720 ha), 2 Registered Battle Fields (115 ha), Cornish Mining World Heritage Site 18, 222 ha; 5.5% of Cornwall.	+	+	0	0	+	+	Medium			
LTCH3: Protect and enhance landscape character and local distinctiveness including Areas of Outstanding Natural Beauty and the World Heritage Site.		+	+	0	0	+	+	Medium			
HSC1: Reduce the number of people killed and seriously injured in road collisions.	KSI total was 15% below the national baseline in 2006. Targets suggest a reduction of 30% by 2010/11 in KSI incidents.	+	+	0	0	+	+	Medium	0	0	Reducing the use of private transport will reduce the opportunities for fatal accidents and serious injuries.
HSC2: Reduce levels crime and fear of crime.	Generally centred on speeding offences, drink driving offences and mobile phone use. 2005 there were 11,964 speeding offences compared to 6,289 in 2008.	0	0	0	0	0	0	Medium	0	0	These policies are not likely to have a significant effect on this objective.
HSC3: Encourage healthier lifestyles particularly by encouraging more	The health of people in Cornwall is generally better than the England average. Both male and female life	+	+	0	+	+	+	Medium	0		Ensuring new developments to provide good quality walking and cycling routes to transport infrastructure will aid fitness and wellbeing.

Objective 16: Improving access to employment, education, health and leisure

Policies as of 8/10/2010:

New residential developments must be located on sites where key services can be accessed without the use of private transport. New developments must provide good quality walking and cycling routes to transport infrastructure and, where appropriate, road layouts must enable bus routes through the development.

Developers must contribute to the cost of operating public transport services and constructing transport infrastructure associated with new developments.

By providing flexible, locally based solutions, we will make transport more effective and efficient in areas where at times of day when patronage is insufficient to support conventional bus services.

Work closely with our partners to ensure that essential services are delivered in a way that all social groups and abilities are able to make use of them.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects	Potential mitigation	Commentary
people to walk and cycle.	expectancies are higher than the England average. Over the last ten years early death rates from heart disease and stroke as well as early death rates from cancer have been declining and remain below the England average.										
A1: Improve accessibility of jobs, shops and other amenities for rural communities.		++	++	0	+	++	++	High	Positive effects for economy and growth through improved access. Improved health through better access to services.	Highlight and promote the role of conventional public transport in delivering sustainable access.	Access to services could be directly improved by locating new developments around existing facilities. By ensuring developers provide adequate walking and cycling links to existing transport links will improve access. Access for all society groups are also being considered in policy.
A2: Reduce the community severance effects of infrastructure.		++	++	0	+	++	++	High			
A3: Provide an inclusive transport network that meets the needs of society and specific groups such as the disabled and elderly.		++	++	0	+	++	++	High			
A4: Improve sustainable access to the countryside		-	-	?	0	-	-	Low		Include policy relating to improving sustainable access to the countryside. Highlight and promote the role of conventional public transport in delivering sustainable access.	It is not clear how the policies will contribute to providing sustainable access to the countryside, however it is assumed that as the Objective refers to "leisure" and the general emphasis on improving accessibility, there should be an effect.
E1: Invest in transport systems that will create a strong and sustainable economy by addressing economic barriers to growth, in particular access and congestion.		++	+	0	+	++	++	Medium		0	Improving access to employment via current public transport routes, developing a more efficient service and locating new developments close to existing services, will support economic growth and expansion.

Summary

Main Effects of the Plan Objectives and Policies

By reducing the need for the use of private transport there could be potential improvement in localised soil qualities as a result of reduced soil acidification from emissions.

Reducing the volume of private transport travel and providing good quality walking and cycling routes to transport infrastructure as an alternative. may benefit local biodiversity

Improving bus links through developments and providing good quality walking and cycling routes to transport infrastructure will help reduce the need for private vehicle travel, therefore emissions and congestion will be reduced. This in turn will improve air quality, reduce transport noise and reduce GHG emissions..

In the long term landscapes, designated sites and protected buildings are likely to benefit from a greater number of people using public transport and using active travel options. This will decrease traffic flows and limit the need for new routes safeguarding existing assets.

Providing better links for cycling and walking and making services more efficient will help to improve townscapes through less congestion and traffic flow.

Reducing the use of private transport will reduce the opportunities for fatal accidents and serious injuries.

Ensuring new developments to provide good quality walking and cycling routes to transport infrastructure will aid fitness and wellbeing.

Access to services will be greatly improved by locating new developments around existing facilities. By ensuring developers provide adequate walking and cycling links to existing transport links will improve access.

Access for all society groups are also being considered in policy.

The policies do not appear to contribute to SEA Objective A4; it is not clear how the policies will contribute to providing sustainable access to the countryside, however it is assumed that as the Objective refers to "leisure" and the general emphasis on improving accessibility, there should be an effect.

Improving access to employment via current public transport routes, developing a more efficient service and locating new developments close to existing services, will support economic growth and expansion.

Cumulative Effects of the Plan Objectives and Policies

Potential local benefits for biodiversity if soil quality can be improved.

Biodiversity will benefit from a reduction in air pollution in the long term. Personal health is also likely to improve through an improvement in air quality and active travel provisions.

Long term health and wellbeing will be improved through a reduction in noise nuisance.

Helping to preserve the landscapes/townscapes in the long term will also benefit biodiversity.

Positive effects for economy and growth through improved access. Improved health and well-being through better access to services.

Potential Mitigation and Recommendations for the LTP

- Include policy relating to improving sustainable access to the countryside.
- Consideration of project level environmental effects through the EIA process.
- Ensure LTP3 proposals do not create new areas of exceedence with regard to air quality
- Highlight and promote the role of conventional public transport in delivering sustainable access.

Objective 17: Improving accessibility to public transport

Policies as of 8/10/2010:

In partnership with bus operators, we will work towards making public transport more affordable for those who need it most.

Take 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.

Provide clear, accurate and understandable transport information and publicity to existing and potential customers with consideration to all social groups and abilities.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long		Identify other receptors with interrelated effects		
WSM1: Minimise the impact of the transport network on the quality and quantity of the county's water resources.	<p>19 surface sources operated by South West Water. Total of 79,813 million litres. In the South West river basin district 23 per cent of waters meet good ecological status and 41 per cent do not meet good status (449 water bodies). The majority of water bodies that fail to meet good status fail because of the phosphorus, fish and diatom elements of classification. Surface runoff from transport routes could be effecting water quality.</p>	0	0	0	0	0	0	Medium	0	0	There is no clear relationship between the policies and this Objective.
WSM2: Reduce contamination and safeguard soil structure quality and quantity from transport systems and infrastructure.	<p>Shillet is most common soil type. Tend to be low in phosphates with impeded drainage, are difficult to manage in winter, but are highly productive if drained properly. 0.1% of agricultural land is Grade 1, 8% is Grade 2 and 61.2% is Grade 3a and 3b, the remainder is urban or poor. Contaminated land has largely arisen due to historical industrial activity, mainly mining.</p>	0	0	0	0	0	0	Medium	0	0	There is no clear relationship between the policies and this Objective.
WSM3: Minimise the impact of transport on mineral resources.	<p>Minerals currently exploited in the county are granite for aggregates and building stones, china clay, slate and sandstone. 2009 production of primary aggregates in Cornwall was around 1.43 million tonnes; this is principally from 12 quarries</p>	0	0	0	0	0	0	Medium	0	0	There is no clear relationship between the policies and this Objective.

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	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects Identify other receptors with interrelated effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long				
	throughout the County. China clay production contributes around £100 million to the UK balance of payments and makes a significant contribution to Cornwall's local economy each year. 2009 production of china clay was estimated to be in the region of 1.6 million tonnes.										
WSM4: Minimise the waste produced by transport systems and infrastructure.	Construction and demolition waste is the largest waste stream, 452,000 tonnes produced in 2008/09, 39% sent to landfill. Municipal waste arising 314,311. 63% sent to landfill. Need to reduce landfilling. Planning appeal logged for 240,000 tonne capacity energy from waste plant.	0	0	0	0	0	0	Medium	0	0	There is no clear relationship between the policies and this Objective.
BI1: Conservation and enhancement of protected habitats and species and making a positive contribution to the local BAP.	41 BAP habitats found in Cornwall covering some 19652 ha overall. There are currently 496 County Wildlife Sites in Cornwall covering nearly 33,000 hectares or 10% of the county's land area. 166 Sites of Special Scientific Interest. 17 SACs, 3 Inland Marine cSACs, and 16 SPAs.	+	+	0	+	+	+	Low	0	Mitigation hierarchy of avoidance, reduction and compensation. Protection of designated sites. Consideration of ecology and biodiversity effects through project level EIA of qualifying schemes.	Taking a whole journey approach when planning new public transport facilities and services to improve integration will help reduce private motor car travel having potential benefits for biodiversity.
BI2: Improvement of ecological coherence, habitat connectivity and climate change resilience and adaption.		0	0	0	0	0	0	Medium	0	0	There is no clear relationship between the policies and this Objective.
AQ1: Reduce social, economic and	2 AQMAs, Bodmin and then Camborne, Pool and	+	+	0	+	+	+	Low	0	Consideration of air quality effects	Taking a whole journey approach when planning new public transport facilities and services to

Objective 17: Improving accessibility to public transport

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Provide clear, accurate and understandable transport information and publicity to existing and potential customers with consideration to all social groups and abilities.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects Identify other receptors with interrelated effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long				
environmental costs of transport on air quality.	Redruth grouped together. Pollutants of most concern are traffic-related fine airborne particulate matter and Nitrogen dioxide. A third AQMA is being considered for Tideford, again traffic related pollution. Air quality in the county is generally good.									through project level EIA of qualifying schemes. Ensure LTP proposals do not create new areas of exceedence	improve integration will help reduce private motor car travel, reducing congestion and air pollution.
N1: Reduce the noise impact of the transport system.	Cornwall Quality of Life Survey indicated that 18.3% of respondents, in their opinion, thought vehicle noise was a 'very big' or 'fairly big' problem when considering contributors to neighbourhood and environmental problems. Over 40% felt it was 'not a very big problem' and fewer than 40% felt it was 'not a problem at all'.	+	+	0	+	+	+	Low	0	Consideration of noise effects through project level EIA of qualifying schemes.	Taking a whole journey approach when planning new public transport facilities and services to improve integration will help reduce private motor car travel, reducing noise levels form traffic flows.
CC1: Mitigation: reduce the contribution of transportation to greenhouse gas emissions.	8.16 tonnes of CO ₂ were released per capita in Cornwall in 2006. Lowest per capita emissions were found in the Isles of Scilly, with 5.73 tonnes. Road transport accounted for 29% of CO ₂ emissions in Cornwall for 2006. Two thirds of Cornish road transport carbon emissions are from private cars.	+	+	0	+	+	+	Medium	0	Air quality monitoring programmes. Concentration on AQMA improvements. Ensure LTP proposals do not create new areas of exceedence. Consideration of air quality effects through project level EIA of qualifying schemes.	Taking a whole journey approach when planning new public transport facilities and services to improve integration will help reduce private motor car travel therefore reducing emissions.

Objective 17: Improving accessibility to public transport

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Take 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.

Provide clear, accurate and understandable transport information and publicity to existing and potential customers with consideration to all social groups and abilities.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long		Identify other receptors with interrelated effects		
		0	0	0	0	0	0	Medium	0	0	There is no clear relationship between the policies and this Objective.
CC2: Adaptation: minimise the vulnerability of the transport infrastructure to climate change.	DEFRA and the Environment Agency have identified which coastal sites and features are most at risk within the next 20 years of sea level change. Mullion Harbour and Godrevy feature in the high risk category and Boscastle Harbour falls into the medium risk category. Over the next 100 years around 15-30 km of additional roads in Cornwall are liable to become inundated by extreme tide levels. 3-5km of these are A roads, 2-4km are B roads, 5-9km C roads and 6-11km are unclassified roads.	0	0	0	0	0	0	Medium	0	0	There is no clear relationship between the policies and this Objective.
LTCH1: Create places, spaces and buildings that enhance local distinctiveness, appearance and sense of place.	12,490 Listed Buildings, 1,872 Scheduled Monuments, 145 Conservation Areas (4070 ha)	+	+	0	0	+	+	Medium	Helping to preserve the landscapes/townscapes in the long term will also benefit biodiversity.	Consideration of landscape and cultural heritage effects through project level EIA of qualifying schemes.	In the long term landscapes, designated sites and protected buildings are likely to benefit from a greater number of people using better integrated public transport systems. This will decrease traffic flows and limit the need for new routes helping to safeguard existing landscape assets. Townscapes will be improved through less congestion and traffic flow.
LTCH2: Protect and enhance buildings, sites, structures and heritage assets that contribute to the quality of countryside, townscape and the public realm.	36 Registered Parks and Gardens (3720 ha), 2 Registered Battle Fields (115 ha), Cornish Mining World Heritage Site 18, 222 ha; 5.5% of Cornwall.	+	+	0	0	+	+	Medium			
LTCH3: Protect and enhance landscape character and local distinctiveness including Areas of Outstanding Natural Beauty and the World Heritage Site.		+	+	0	0	+	+	Medium			

Objective 17: Improving accessibility to public transport

Policies as of 8/10/2010:

In partnership with bus operators, we will work towards making public transport more affordable for those who need it most.

Take 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.

Provide clear, accurate and understandable transport information and publicity to existing and potential customers with consideration to all social groups and abilities.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long		Identify other receptors with interrelated effects		
HSC1: Reduce the number of people killed and seriously injured in road collisions.	KSI total was 15% below the national baseline in 2006. Targets suggest a reduction of 30% by 2010/11 in KSI incidents.	+	+	0	+	+	+	Medium	0	0	Reducing the use of private transport will reduce the opportunities for fatal accidents and serious injuries.
HSC2: Reduce levels crime and fear of crime.	Generally centred on speeding offences, drink driving offences and mobile phone use. 2005 there were 11,964 speeding offences compared to 6,289 in 2008.	0	0	0	0	0	0	Medium	0	0	There is no clear relationship between the policies and this Objective.
HSC3: Encourage healthier lifestyles particularly by encouraging more people to walk and cycle.	The health of people in Cornwall is generally better than the England average. Both male and female life expectancies are higher than the England average. Over the last ten years early death rates from heart disease and stroke as well as early death rates from cancer have been declining and remain below the England average.	+	+	0	+	+	+	Medium	0	0	Developing a whole journey approach to transport routes has the potential to promote walking and cycling. Providing clear and understandable transport information will also advertise the presence of alternative modes and encourage the public to take them up.
A1: Improve accessibility of jobs, shops and other amenities for rural communities.		++	++	0	+	++	++	High	Positive effects for economy and growth through improved access. Improved health through better access to services.		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.
A2: Reduce the community severance effects of infrastructure.		+	+	0	+	+	+	High			
A3: Provide an inclusive transport network that meets the needs of society and specific groups such as the disabled and elderly.		++	++	0	+	++	++	High			
A4: Improve sustainable access to the countryside		+	+	0	+	+	+	Medium	Positive effects for economy and growth through improved access.	0	Improving integration of public transport systems will help to create sustainable access to the countryside.

Objective 17: Improving accessibility to public transport											
Policies as of 8/10/2010: In partnership with bus operators, we will work towards making public transport more affordable for those who need it most. Take 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. Provide clear, accurate and understandable transport information and publicity to existing and potential customers with consideration to all social groups and abilities.											
	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long		Identify other receptors with interrelated effects		
E1: Invest in transport systems that will create a strong and sustainable economy by addressing economic barriers to growth, in particular access and congestion.		+	+	0	+	+	+	Medium	Health and wellbeing is likely to improve with successful economic growth.	0	Improving integration of public transport systems will help improve access and could help to reduce congestion levels. Providing affordable services will help

Summary

Main Effects of the Plan Objectives and Policies

Taking a whole journey approach when planning new public transport facilities and services to improve integration will help reduce private motor car travel having potential benefits for biodiversity. Similarly, by reducing private motor car trips there are likely to be corresponding reductions in congestion, air pollution, traffic noise and reduced GHG emissions.

In the long term landscapes, designated sites and protected buildings are likely to benefit from a greater number of people using better integrated public transport systems. This will decrease traffic flows and limit the need for new routes helping to safeguard existing landscape assets. Townscapes may also be improved through reduced congestion and traffic through flow.

Reducing the use of private transport is likely to help reduce the opportunities for fatal accidents and serious injuries.

Developing a whole journey approach to transport routes has the potential to promote walking and cycling. Providing clear and understandable transport information will also advertise the presence of alternative modes and encourage the public to take them up.

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.

Economic growth may also benefit indirectly through reduced congestion on the transport networks.

Cumulative Effects of the Plan Objectives and Policies

Helping to preserve the landscapes/townscapes in the long term will also benefit biodiversity.

Positive effects for economy and growth through improved access.

Health and wellbeing is likely to improve through better access to services and employment.

Potential Mitigation and Recommendations for the LTP

The emphasis of this policy is to improve access to, and use of public transport mainly through the provision of information and co-ordination of services. This emphasis results in fewer relationships between the "physical environment" SEA objectives (natural resources, biodiversity etc.). Where there are effects, these tend to be indirect, and positive. As a consequence, no negative effects of this policy have been identified and no mitigation (beyond that already identified for other objectives) is identified for this policy.

Consideration of project level environmental effects through the EIA process.

Ensure LTP3 proposals do not create new areas of exceedence with regard to air quality

Opportunities for enhancement include:

Aligning air quality monitoring with Air Quality Management Areas action plans to identify effectiveness of policy and target policy to this area if necessary.

Promoting environmental best practice in the development of any schemes to maximise the benefit realised in terms of biodiversity, landscape, townscape and historic environment (including setting and 'sense of place' elements), noise, water quality and land take.

Objective 18: Encourage community participation in shaping and delivering transport services for their communities

Policies as of 8/10/2010:

Work with communities to empower them to identify and act upon local transport issues.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects Identify other receptors with interrelated effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long				
WSM1: Minimise the impact of the transport network on the quality and quantity of the county's water resources.	19 surface sources operated by South West Water. Total of 79,813 million litres. In the South West river basin district 23 per cent of waters meet good ecological status and 41 per cent do not meet good status (449 water bodies). The majority of water bodies that fail to meet good status fail because of the phosphorus, fish and diatom elements of classification. Surface runoff from transport routes could be effecting water quality.	0	0	0	0	0	0	Medium	0	0	There is no clear relationship between the policies and this Objective.
WSM2: Reduce contamination and safeguard soil structure quality and quantity from transport systems and infrastructure.	Shillet is most common soil type. Tend to be low in phosphates with impeded drainage, are difficult to manage in winter, but are highly productive if drained properly. 0.1% of agricultural land is Grade 1, 8% is Grade 2 and 61.2% is Grade 3a and 3b, the remainder is urban or poor. Contaminated land has largely arisen due to historical industrial activity, mainly mining.	0	0	0	0	0	0	Medium	0	0	There is no clear relationship between the policies and this Objective.
WSM3: Minimise the impact of transport on mineral resources.	Minerals currently exploited in the county are granite for aggregates and building stones, china clay, slate and sandstone. 2009 production of primary aggregates in Cornwall was around 1.43 million tonnes; this is principally from 12 quarries throughout the County. China clay production contributes around £100	0	0	0	0	0	0	Medium	0	0	There is no clear relationship between the policies and this Objective.

Objective 18: Encourage community participation in shaping and delivering transport services for their communities

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Work with communities to empower them to identify and act upon local transport issues.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects Identify other receptors with interrelated effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long				
	million to the UK balance of payments and makes a significant contribution to Cornwall's local economy each year. 2009 production of china clay was estimated to be in the region of 1.6 million tonnes.										
WSM4: Minimise the waste produced by transport systems and infrastructure.	Construction and demolition waste is the largest waste stream, 452,000 tonnes produced in 2008/09, 39% sent to landfill. Municipal waste arising 314,311. 63% sent to landfill. Need to reduce landfilling. Planning appeal logged for 240,000 tonne capacity energy from waste plant.	0	0	0	0	0	0	Medium	0	0	There is no clear relationship between the policies and this Objective.
BI1: Conservation and enhancement of protected habitats and species and making a positive contribution to the local BAP.	41 BAP habitats found in Cornwall covering some 19652 ha overall. There are currently 496 County Wildlife Sites in Cornwall covering nearly 33,000 hectares or 10% of the county's land area. 166 Sites of Special Scientific Interest. 17 SACs, 3 Inland marine cSACs and 16 SPAs.	?	?	0	?	?	?	Low	0	Promote community-owned multi-use/multi-benefit projects alongside community engagement and empowerment linked with transport.	Communities could help identify specific habitats or sites which hold specific importance within communities and that should be protected from transport infrastructure.
BI2: Improvement of ecological coherence, habitat connectivity and climate change resilience and adaption.		?	?	?	?	?	?	Low	0	Council to provide information on community actions that can enhance biodiversity. Investigate opportunities to engage community members as volunteer wardens to 'patrol' and manage maintain areas for biodiversity benefit.	There is potential for improving habitat connectivity in consultation with communities through the identification of multi-use spaces. For example; recreational/commuter footpaths and cycleways in conjunction with wildlife corridors and urban nature reserves.
AQ1: Reduce social, economic and environmental costs of	2 AQMAs, Bodmin and then Camborne, Pool and Redruth grouped together. Pollutants	+	+	0	+	+	+	Medium	0		Communities could potentially help in identifying problem areas were air quality issues need addressing.

Objective 18: Encourage community participation in shaping and delivering transport services for their communities

Policies as of 8/10/2010:

Work with communities to empower them to identify and act upon local transport issues.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects Identify other receptors with interrelated effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long				
transport on air quality.	of most concern are traffic-related fine airborne particulate matter and Nitrogen dioxide. A third AQMA is being considered for Tideford, again traffic related pollution. Air quality in the county is generally good.										
N1: Reduce the noise impact of the transport system.	Cornwall Quality of Life Survey indicated that 18.3% of respondents, in their opinion, thought vehicle noise was a 'very big' or 'fairly big' problem when considering contributors to neighbourhood and environmental problems. Over 40% felt it was 'not a very big problem' and fewer than 40% felt it was 'not a problem at all'.	+	+	0	+	+	+	Medium	0		Communities could potentially help in identifying problem areas where traffic noise nuisance is considered a problem.
CC1: Mitigation: reduce the contribution of transportation to greenhouse gas emissions.	8.16 tonnes of CO ₂ were released per capita in Cornwall in 2006. Lowest per capita emissions were found in the Isles of Scilly, with 5.73 tonnes. Road transport accounted for 29% of CO ₂ emissions in Cornwall for 2006. Two thirds of Cornish road transport carbon emissions are from private cars.	0	0	0	0	0	0	Medium	0	0	There is no clear relationship between the policies and this Objective.
CC2: Adaptation: minimise the vulnerability of the transport infrastructure to climate change.	DEFRA and the Environment Agency have identified which coastal sites and features are most at risk within the next 20 years of sea level change. Mullion Harbour and Godrevy feature in the high risk category and Boscastle Harbour falls into the medium risk category. Over the next 100 years around 15-30 km of additional roads in Cornwall	0	0	0	0	0	0	Medium	0	0	There is no clear relationship between the policies and this Objective.

Objective 18: Encourage community participation in shaping and delivering transport services for their communities

Policies as of 8/10/2010:

Work with communities to empower them to identify and act upon local transport issues.

	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects Identify other receptors with interrelated effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long				
	are liable to become inundated by extreme tide levels. 3-5km of these are A roads, 2-4km are B roads, 5-9km C roads and 6-11km are unclassified roads.										
LTCH1: Create places, spaces and buildings that enhance local distinctiveness, appearance and sense of place.	12,490 Listed Buildings, 1,872 Scheduled Monuments, 145 Conservation Areas (4070 ha) 36 Registered Parks and Gardens (3720 ha), 2 Registered Battle Fields (115 ha), Cornish Mining World Heritage Site 18, 222 ha; 5.5% of Cornwall.	+	+	0	+	+	+	Medium	0	Promote community-owned multi-use/multi-benefit projects alongside community engagement and empowerment linked with transport.	Engaging communities in the development of transport solutions will potentially assist in creating a sense of local distinctiveness and 'ownership'.
LTCH2: Protect and enhance buildings, sites, structures and heritage assets that contribute to the quality of countryside, townscape and the public realm.		+	+	0	+	+	+	Medium	0	Investigate opportunities to engage community members as volunteer wardens to 'patrol' and manage maintain areas or tranquillity/landscape or heritage interest.	Communities could help identify specific sites, tranquil areas, landscapes, townscapes and buildings which hold specific importance within communities and that should be protected from transport infrastructure.
LTCH3: Protect and enhance landscape character and local distinctiveness including Areas of Outstanding Natural Beauty and the World Heritage Site.		+	+	0	+	+	+	Medium	0		Through the above elements, and interwoven with them, there is potential to enhance protection and valuation of the wide landscape and heritage designations.
HSC1: Reduce the number of people killed and seriously injured in road collisions.	KSI total was 15% below the national baseline in 2006. Targets suggest a reduction of 30% by 2010/11 in KSI incidents.	+	+	0	+	+	+	Medium	0	0	Discussion with communities can help identify potentially dangerous stretches of road, and locations of particular concern in addition to those where statistic might indicate a problem. This can help identify where improvements should be made to infrastructure to help safety.
HSC2: Reduce levels crime and fear of crime.	Generally centred on speeding offences, drink driving offences and mobile phone use. 2005 there were 11,964 speeding offences compared to 6,289 in 2008.	+	+	0	+	+	+	Medium	0	Investigate opportunities to engage community members as volunteer wardens to 'patrol' and manage maintain areas for social benefit.	Communities can advise on locations of concern and inform/suggest specific measures which could be taken to improve confidence, security and safety.
HSC3: Encourage healthier lifestyles particularly by	The health of people in Cornwall is generally better than the England average.	0	0	0	0	0	0	Medium	0	0	

Objective 18: Encourage community participation in shaping and delivering transport services for their communities											
Policies as of 8/10/2010: Work with communities to empower them to identify and act upon local transport issues.											
	Baseline, Indicators and targets (where applicable)	Spatial Scale			Temporal Scale			Certainty	Interrelationships & potential cumulative effects	Potential mitigation	Commentary
		Local	County wide	Trans-boundary	Short	Medium	Long		Identify other receptors with interrelated effects		
	encouraging more people to walk and cycle.										
	Both male and female life expectancies are higher than the England average. Over the last ten years early death rates from heart disease and stroke as well as early death rates from cancer have been declining and remain below the England average.										
	A1: Improve accessibility of jobs, shops and other amenities for rural communities.	+	+	0	+	+	+	Medium	Health and wellbeing is likely to improve with economic security, through better accessibility to services and economic infrastructure.	0	Communities can help identify areas of severance and where accessibility could be improved to existing services and amenities. Specific discussions with groups such as schools, children, the elderly and disabled can advise on how transport systems could be improved to meet their needs.
	A2: Reduce the community severance effects of infrastructure.	+	+	0	+	+	+	Medium		0	
	A3: Provide an inclusive transport network that meets the needs of society and specific groups such as the disabled and elderly.	+	+	0	+	+	+	Medium		0	
	A4: Improve sustainable access to the countryside	?	?	0	?	?	?	Low		0	
	E1: Invest in transport systems that will create a strong and sustainable economy by addressing economic barriers to growth, in particular access and congestion.	0	0	0	0	0	0	Low	0	0	There is no clear relationship between the policies and this Objective.

Summary

Main Effects of the Plan Objectives and Policies

Effective Community engagement is an essential contributor to planning effective transport solutions that meet the needs of Cornwall's current residents and future generations. Done well, it should engage both communities as a whole and specific user-groups within those communities to enable the planning, design and execution of schemes that meet environmental and social objectives whilst at the same delivering solutions to real problems identified by the Communities affected.

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:

- Communities could help identify specific habitats or sites which hold specific importance or interest for them and that should be protected from transport infrastructure.
- There is potential for improving habitat connectivity in consultation with communities through the identification of multi-use spaces. For example; recreational/commuter footpaths and cycleways in conjunction with wildlife corridors and urban nature reserves.
- Communities could potentially help in identifying problem areas where air quality issues need addressing and where traffic noise nuisance is considered a problem.
- Engaging communities in the development of transport solutions will potentially assist in creating a sense of local distinctiveness and 'ownership'. Communities could help identify specific sites, tranquil areas, landscapes, townscapes and buildings which hold specific importance within communities and that should be protected from transport infrastructure. Through these elements, and interwoven with them, there is potential to enhance protection and valuation of the wide landscape and heritage designations.
- Discussion with communities can help identify potentially dangerous stretches of road, and locations of particular concern in addition to those where statistics might indicate a problem. This can help identify where improvements should be made to infrastructure to help safety.
- Communities can advise on locations of concern and inform/suggest specific measures which could be taken to improve confidence, security and safety.
- Communities can help identify areas of severance and where accessibility could be improved to existing services and amenities. Specific discussions with groups such as schools, children, the elderly and disabled can advise on how transport systems could be improved to meet their needs.

Cumulative Effects of the Plan Objectives and Policies

There is likely to be a reduction in motorised travel helping to improve air quality, noise levels, landscapes and biodiversity.
Health and wellbeing is likely to improve with economic security, through better accessibility to services and economic infrastructure.

Potential Mitigation and Recommendations for the LTP

Promote community-owned multi-use/multi-benefit projects alongside community engagement and empowerment linked with transport.
Investigate opportunities to engage community members as volunteer wardens to 'patrol' and manage maintain areas for multiple benefit; this includes potential biodiversity, landscape, access and social benefits.