



# Strategic Environmental Assessment – Non- Technical Summary Local Transport Plan 4 (LTP4)

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# 1 What is this document?

This Non-Technical Summary (Rev1) is a précis of the Environmental Report (Rev1) prepared as part of the Strategic Environmental Assessment (SEA) of the fourth Kent Local Transport Plan (LTP4).

Local authorities are required by law to undertake a Strategic Environmental Assessment of their Local Transport Plan under the Environmental Assessment of Plans and Programmes Regulations 2004. This SEA has been undertaken on KCC's behalf by Amey.

The SEA process allows Kent County Council (KCC), the Government, statutory environmental bodies, the public and other stakeholders to understand what the possible beneficial and negative environmental effects of LTP4 are likely to be, and ensures that environmental considerations have been taken into account fully during the development of LTP4.

As part of the SEA process an initial Scoping Report and a Consultation Draft of the SEA Environmental Report (Rev0) were produced along with a previous version (Rev0) of this Non-Technical Summary. Public and statutory consultation has resulted in a number of amendments being made to LTP4 to reflect the comments received. The Environmental Report and Non-Technical Summary have also been reviewed to incorporate relevant comments and the changes to LTP4. This NTS (Rev1) summarises the Final draft of the Environmental Report (Rev1) to be published alongside the adopted LTP4.

An SEA Environmental Statement has also been produced, outlining:

- How the Environmental Report has been taken into account in preparation of the LTP4;
- How the opinions expressed in the consultation on Scoping Report and the Draft Environmental Report have been taken into account;
- The reasons for choosing the Final LTP4 as adopted, in the light of other reasonable alternatives considered; and,
- The measures that are to be taken to monitor the significant environmental effects of the implementation of the Final LTP4.

## 2 What is LTP4?

LTP4 replaces the KCC 2011 to 2016 Third Local Transport Plan (LTP3). LTP4 covers the KCC administrative area and sets out:

- The long term transport strategy for the county of Kent 2016 to 2031; and,
- An Annexe which presents the methodology for appraising and prioritising local transport schemes to form the Integrated Transport Programme (ITP).

### 2.1 The LTP4 vision

The central focus of LTP4 is the transport ambition: “To deliver safe and effective transport, ensuring that all Kent’s communities and businesses benefit, the environment is enhanced and economic growth is supported”. The LTP4 vision has been influenced by local and national priorities and policies and current local transport issues.

### 2.2 The LTP4 Outcomes and Policies

To deliver the LTP4 vision, the Council developed five desired transport Outcomes and related Policies.

#### ***Outcome 1: Economic growth and minimised congestion***

**Policy:** Deliver resilient transport infrastructure and schemes that reduce congestion and improve journey time reliability to enable economic growth and appropriate development, meeting demand from a growing population.

#### ***Outcome 2: Affordable and accessible door-to-door journeys***

**Policy:** Promote affordable, accessible and connected transport to enable access for all to jobs, education, health and other services.

#### ***Outcome 3: Safer travel***

**Policy:** Provide a safer road, footway and cycleway network to reduce the likelihood of casualties, and encourage other transport providers to improve safety on their networks.

#### ***Outcome 4: Enhanced environment***

**Policy:** Deliver schemes to reduce the environmental footprint of transport, and enhance the historic and natural environment.

#### ***Outcome 5: Better health and wellbeing***

**Policy:** Promote active travel choices for all members of the community to encourage good health and wellbeing, and implement measures to improve local air quality.

### **3 Current environmental baseline and trends in Kent**

An important part of the SEA was to establish what the environment is like in Kent now and how this might change up to the year 2031. It also assesses the environmental effects of the long term transport strategy up to the year 2031 and compares the situation without this plan in place.

#### **3.1 Biodiversity, Flora & Fauna**

##### ***3.1.1 Baseline***

Kent contributes significantly to the value of the regional biodiversity resource, with numerous sites of European and International Importance including 14 Special Areas of Conservation (SACs), 5 Special Protection Areas (SPAs), and 5 Ramsar Wetland Sites. This is significant as the presence of these sites triggers the requirement for Habitats Regulations Assessment (HRA) Screening to be undertaken for LTP4. There are also 11 National Nature Reserves.

There are 101 Sites of Special Scientific Interest (SSSIs) within Kent, which cover a total area of 33,163 hectares covering 8.5% of the county. As of June 2010, 97% of the area of SSSIs in the county was meeting the Public Service Agreement (PSA) target of being in either favourable (77.17%) or unfavourable recovering (19.90%) condition. There are 456 Local Wildlife Sites (LWSs) across Kent (with some being transboundary with Medway) which contain large tracts of priority habitat. LWSs cover approximately 7% of the county. Over 60% of agricultural land in Kent is under Environmental Stewardship.

Kent Biodiversity Action Plan (BAP) identifies priority habitats/species and includes targeted actions for 85 UK BAP species and 24 UK BAP Priority Habitats within the county. The Kent BAP includes a number of objectives to halt the loss or decline of these species and habitats. The Kent UK BAP priority habitats are now the focus of Habitat Action Plans (HAPs) produced by the Kent Biodiversity Partnership. Each HAP sets out the steps needed to secure a healthy future for the habitat and for the wildlife that depends on the habitat for their survival. These generally relate to raising awareness and securing appropriate habitat management. Some of the BAP priority species are also legally protected such as Noctule bats, great crested newt, otter, dormouse and water vole.

##### ***3.1.2 Trends***

Biodiversity in the UK is already being affected by climate change. BAP habitats at a particular location may not be viable in the same location in the future due to a changing climate. Areas of intertidal habitat have already been lost to sea level rise, in the South East there have been significant losses of saltmarsh across 12 Special Protection Areas. An increasing human population

in Kent is likely to cause a decline in biodiversity due to an increased requirement for infrastructure, housing development and water consumption. To withstand these pressures it is important to retain connectivity of existing habitats within the LTP area and reduce fragmentation of habitats where possible.

A reduction in the number of sites of National and European importance to nature conservation meeting 'recovering' status targets, reflecting a continued decline in biodiversity within the county, possibly resulting in a de-listing of important sites for nature and in extreme cases localised extinction of "at-risk" species.

## **3.2 Air Quality**

### ***3.2.1 Baseline***

Transport is a significant contributor to poor air quality and its associated health problems in Kent, as evidenced by Kent's 39 declared Air Quality Management Areas (AQMAs); the majority of which are located on main roads or motorways. They have additionally been declared in town centres of Canterbury and Tunbridge Wells, the docks at Dover, Tonbridge Town centre, A20/A25 corridor in Tonbridge and Malling, and areas of Maidstone and Thanet. The M25, M20, M2 and A299 are major transport corridors with the heaviest traffic flows between Kent's town centres.

Causative emissions from industrial sources are comparatively well regulated and minor compared to those from motor vehicles, due to the extensive road network crossing the county. The key pollutants which affect human health and are of most relevance to the SEA of the LTP4 are Nitrogen Dioxide (NO<sub>2</sub>) and PM10 (Particulate Matter up to 10 micrometres in size). Poor air quality as a result of these pollutants may result in more than 32,000 premature deaths in the UK per year. These figures demonstrate the importance of good planning to help bring about improved air quality. Kent, despite recent improvements, still contains some of the worst air pollution in the UK.

### ***3.2.2 Trends***

High levels of housing development planned for Kent to accommodate a growing population and the related creation of more road acreage will lead to proportionally more cars so there will be a potential for air quality to worsen.

## **3.3 Human Health**

### ***3.3.1 Baseline***

Transportation and the access it can provide to vital services, such as hospitals, employment and

community amenities, makes it a significant factor in the health and wellbeing of Kent's population. Conversely, environmental impacts such as noise and air pollution of some modes of transportation negatively affect morbidity and mortality. Therefore it is vital to consider human health when altering transport policies in order to target inequalities and positively impact on human health, rather than inadvertently worsening them.

### **3.3.2 Trends**

If the consequences to human health are not considered, alterations to the transportation network could have negative impacts. For example, changes in noise and air pollution due to the proximity to transport infrastructure, climate change impacts, and access to fresh food would result in direct effects on human health and wellbeing. Poor access to and uptake of active modes of travel (such as cycling and walking) directly affects health by failing to support healthy lifestyles and reduction in obesity levels.

## **3.4 Climatic Factors**

### **3.4.1 Baseline**

Climate change refers to the slow increase in the global average temperature which, due to anthropogenic factors, has accelerated over the last century resulting in a warming of 0.74°C over that period and a rise in the UK's sea levels by approximately 1.2mm every year. The anthropogenic actions considered responsible for this are emissions of greenhouse gases (GHGs) including carbon dioxide and methane. In the UK around a quarter of the CO<sub>2</sub> emissions are from transport. Globally higher temperatures increase the available energy in weather systems resulting in more numerous and intense extreme weather conditions such as flooding and droughts. GHGs remain in the atmosphere for centuries, providing inertia even if the GHG emission levels were immediately reduced to historic norms. As a result, human systems must adapt to the new circumstances and where possible assist natural systems to do the same; meanwhile militating against further GHG emissions.

KCC has since 2008 participated in the 'PACT organisational capacity building framework', in addition to the well-established Climate Change Programme created following Kent's inclusion into the Nottingham Declaration framework. However, Kent still faces a challenge when it comes to reducing its GHG outputs and reinforcement of existing infrastructure against the effects of a changing climate.

### **3.4.2 Trends**

In the South East of England we expect climate change to lead to greater volatility of weather -

more intense downpours, more severe droughts and floods, more extreme heatwaves. The predictions for Kent up to the year 2095 include up to 76cm sea level rise. These predictions are of particular concern to Kent, as due to its geographic location and long coastline, it is expected to be affected by climate change more than other parts of the UK. The high summer temperatures and low rainfall could adversely affect the local water supply as well as the human health impacts of heat-related illness, water borne and air borne disease and asthma like symptoms linked to air quality incidents, triggered by more frequent and extreme heat-waves. More frequent flooding, heatwaves and sea level rise are likely to result in increased damage to road and rail infrastructure within vulnerable areas and may affect the reliability of the networks and services.

## **3.5 Population**

### ***3.5.1 Baseline***

By ensuring that Kent has a robust transport network it will allow residents to have access to jobs and services, therefore it is essential changes in population and travel patterns are monitored to be aligned with the proposed transport priorities. As of 2014, the population for the county is estimated to be in the region of 1,510,400. According to the KCC mid-2014 data (July 2015) Maidstone has the largest population of all Kent districts, with a population of 161,800, however Dartford has the smallest with 102,200 individuals. The population of Kent is projected to grow between 2016 and 2033, rising by 13.8% to 1,734,600 in 2033. This growth is partly due to natural increase (more births than deaths) and net migration into the county. Kent also has an aging population.

### ***3.5.2 Trends***

A growing population will put pressure on community services and potentially put more private car users on the road. Poor access to modes of travel other than private car (such as buses and trains, plus cycling and walking) affects the local economy by altering access to employment and key services including health facilities, shops and the countryside/local green spaces. Rural Kent's ageing population has implications for transport planning, community activities, housing needs and social care provision. The areas in Kent that are suffering from deprivation are restricted by the availability of affordable travel and if this continues there will be limited scope for these residents to access public transport or use a private vehicle in order to approach employment and access other key services, such as health facilities.

## **3.6 Water**

### ***3.6.1 Baseline***

North Kent falls in the Thames River Basin District (RBD), which contains a total of 545 surface and ground water bodies. Within Thames RBD, the ecological status of surface waters has worsened since 2009, although groundwater quality and chemical status of surface waters have shown some improvement. South Kent falls in the South East RBD, which contains a total of 315 surface and ground water bodies. In the South East RBD, trends in water quality mirror those in the Thames RBD.

In both RBMPs, "Urban and Transport" is identified in 2015 as negatively influencing numerous physical and chemical water quality determinants: The transportation network and its associated construction create hundreds of hectares of impermeable areas which can adversely affect water quality and flow. From small streams to the main rivers, all levels of a catchment area are at risk from contamination by silt, engine oil, tyre rubber, de-icing salt, and metals. In addition to these chronic diffuse pollution sources there is the risk of occasional acute point source spillages of pollutants in the event of accidents. During long dry periods pollutants accumulate on impermeable surfaces and lead to highly polluting surface water run off when it rains.

Impermeable surfaces promote rainwater run-off and prevent infiltration into soil and hence reduce recharge to groundwater; these in turn contribute to both flooding of low lying areas, and water shortages due to depleted aquifers. The nature and severity of these is affected by the design of the existing highway drainage systems and the transport infrastructure such as the roads' construction.

### ***3.6.2 Trends***

Due to the development of infrastructure there will be an increase in the area of impermeable ground surfaces and consequently this could lead to an increase in surface water runoff, pollution incidents and potentially higher flood risk. Due to climate change it is likely that winter flooding is to increase and widespread flooding has the potential to impact on communities due to disruption to services and transport.

## **3.7 Cultural Heritage**

### ***3.7.1 Baseline***

Kent as the historical gateway to continental Europe from Britain has a rich history of archaeology which includes the oldest evidence of human occupation, starting over half a million years ago. Kent has a large selection of protected cultural heritage features (Table 1) ranging from listed

buildings to the World Heritage site at Canterbury where the cathedral, St Augustine's Abbey and St Martin's Church provide the visual record of the introduction of Christianity to Britain. Kent's wider historic landscape gives local distinctiveness that is essential to the character of its towns, villages and countryside.

Table 1: The number of Kent's protected cultural heritage assets

<b>Listed Buildings</b>	<b>Scheduled Ancient Monuments</b>	<b>Historic Parks &amp; Gardens</b>	<b>Conservation Areas</b>	<b>World Heritage Sites</b>
1,406	400	61	>150	1

In addition to this Kent has an extensive record of archaeological finds from known hotspots and discoveries reported by the public. The risk of loss or damage to Kent's historic environment comes from many threats, large and small. From the accumulation of land-take or neglect of buildings eroding their value, to the loss of the cultural heritage features in redevelopment projects, of which transport infrastructure is capable of. It is essential to minimise harmful impacts via good practice. Equally transport schemes can uncover remains, which is properly managed can add to our understanding of the historic environment.

### **3.7.2 Trends**

Construction and maintenance of existing infrastructure without appropriate archaeological mitigation could lead to accidental damage and loss of the resource. Development to meet the demands on the transport system made by the growing pressures of population growth and economic renewal has the potential to compromise local distinctiveness and historical assets which are essential to the character of Kent's towns, villages and countryside. Development that homogenises a landscape or obscures its history is removing an irreplaceable resource that can affect other service industries like tourism. Conversely an increase in tourism and therefore the number of visitors to the area would also be potentially damaging due to an increase in vehicle emissions, which on a local level can damage buildings and contributes to global carbon emissions.

## **3.8 Landscape**

### **3.8.1 Baseline**

The quality of Kent's countryside has been recognised as a valuable national asset with two parts of the county having been designated as Areas of Outstanding Natural Beauty (AONB): the Kent Downs and the High Weald. The Kent Downs AONB consists of the eastern half of the North

Downs covering nearly a quarter of Kent, stretching from the White Cliffs at Dover up to the Surrey and London borders. In addition, the highest areas of the Greensand ridge in Kent, together with a spit of ragstone escarpment above the Romney Marsh, are also within the Kent Downs. It is a landscape of dramatic chalk escarpments, secluded dry valleys, ancient woodlands and traditional orchards. The area has networks of tiny lanes, historic hedgerows, locally distinctive villages and many sites of historic and cultural interest.

The High Weald AONB is an historical countryside of rolling hills draped by small, irregular fields, abundant woods and hedges, scattered farmsteads and sunken lanes. Other features include flower-rich meadow, patches of heathland, hop gardens, orchards, sandstone outcrops, steep wooded ravines bottomed by streams, and 'hammer' ponds (remnants of the Wealden iron industry). The High Weald was once an untamed, wooded area, with patches of wild grassland and heath land. It remains as a densely wooded area of England and now hosts the highest proportion of ancient woodland in the country.

However, rather than being limited to just the best and most beautiful areas, it is increasingly understood that a consideration of landscape must seek to value and appreciate the diversity of all landscapes. Thus, before the value of landscapes can be evaluated they first have to be characterised. In the 1990s the country was divided into 159 National Character Areas (NCAs). 'Character' was defined as a particular combination of physical influences (geology, topography, soils) with cultural and historical influences. Seven NCAs have been identified in Kent, the descriptions of which highlight that the landscape is sensitive to new roads, road improvement schemes or increased traffic on local roads, particularly where roads tend to be narrow rural lanes (e.g. High Weald) and where tranquillity is currently high (e.g. the North Downs):

NCA 81 – Greater Thames Estuary

NCA 113 – North Kent Plains

NCA 119 – North Downs

NCA 120 – Wealden Greensand

NCA 121 – Low Weald

NCA 122 – High Weald

NCA 123 – Romney Marshes

Hedgerows, trees and woodland are important natural features in Kent's landscape. Although Kent has proportionately less woodland cover than the South East as a whole, a high proportion of its woodland is ancient. Kent has approximately 10% of the national resource of ancient

woodland. Ancient woodland inventories are available, some of which have recently been revised (e.g. Ashford Borough and Tunbridge Wells Borough).

### **3.8.2 Trends**

Due to population growth, development on brown and green field sites surrounding Kent's larger settlements is very likely, potentially reducing the quality and quantity of 'natural' landscape. If managed correctly transport can play an important role in improving the public's access to landscapes of high value which could consequently lead to improvements in health due to adoption of healthier lifestyles such as increased walking and cycling. Improvements to general health can also occur through relief of stress from tranquil areas and landscapes.

## **3.9 Noise & Tranquillity**

### **3.9.1 Baseline**

Disturbance resulting from noise can be a nuisance and a negative influence on both human health and wellbeing, and biodiversity. Due to the effects noise pollution can have on a surrounding population it is covered by a wide range of legislation, policy and guidance. It is included in this Scoping Report despite not being a topic in its own right within the SEA regulations, as the construction and operation of transport infrastructure has considerable potential to cause negative impacts as a result of noise.

Kent is a relatively tranquil county due to the dispersed nature of its settlements and wide tracks of agricultural or rural use land, and its prominent position on the coast provides a buffer to ambient noise generated by coastal infrastructure like shipping or road and rail. There are nonetheless transport-related noise hotspots throughout the county, particularly along major road and rail routes.

### **3.9.2 Trends**

As the number of vehicle users is predicted to increase due to a growing population it is likely that congestion and traffic volume will increase in some areas and therefore noise pollution will also increase.

## **3.10 Material Assets**

### **3.10.1 Baseline**

"Material assets" is defined as the consumption of resources and the generation of waste. Within the scope of the LTP4 SEA are:

- The transport asset and its condition;

- Material usage, re-usage and waste; and
- Energy and fuel usage.

KCC's transport network includes in excess of 5000 miles of roads, 4000 miles of footway, 4200 miles of public rights of way, 400 miles of cycle routes, as well as 2700 bridges, 130,000 traffic signs, and 700 traffic signal sites. Additions are made to the network each year as well as improvements and general maintenance. Materials are integral to the construction and maintenance of transport infrastructure.

### ***3.10.2 Trends***

Improvements to the economic climate and additional government incentives promote housebuilding and large-scale infrastructure projects. These inherently use material assets and produce waste. It is anticipated that this trend will continue over the coming years. The consumption of natural resources in order to maintain Kent's transport network has an adverse environmental effect - however, if maintenance was not undertaken the integrity and quality of the asset would deteriorate to the detriment of accessibility and economic growth; and the natural resources required to replace the deteriorated asset would be greater and more costly than that of proper routine maintenance.

## 4 Strategic Environmental Assessment Objectives

Part of the SEA process was to create an SEA framework for assessment. This looked at the current environmental issues identified in the last section of this summary, to produce Objectives to help assess the performance of LTP4 and its effects on the local environment. The final SEA Objectives are listed in the Table 2, below.

Table 2: SEA Objectives

SEA Topic	SEA Objectives	
<b>Biodiversity, Flora &amp; Fauna</b>	Protect and enhance the county's habitats, biodiversity levels, and species of international, national, regional and local importance.	Apply innovative and technological approaches to achieving sustainable outcomes.
<b>Air Quality</b>	Improve air quality in urban areas and achieve the NAQS and AQMA objectives across the county.	
<b>Human Health</b>	Support transport solutions that promote positive health outcomes through active and sustainable travel choices and improved road safety.	
<b>Climatic Factors</b>	Reduce vulnerability to climate change-related extreme weather events by creating a resilient transport infrastructure and identifying appropriate adaptation and mitigation measures.	
<b>Population</b>	Promote accessible, integrated and sustainable transport networks that support the needs of the economy and local communities.	
<b>Water</b>	Coordinate across the county in parallel with other planning policy, in order to address water catchment quality and resource issues.	
<b>Cultural Heritage</b>	Protect and enhance cultural heritage, and access to areas and features of historic, architectural or archaeological importance.	
<b>Landscape</b>	Protect and enhance the character and diversity of all landscape assets through planning and policy decisions and ensure development does not decrease visual and recreational amenity.	
<b>Noise &amp; Tranquility</b>	Seek to reduce noise at source, particularly in existing Noise Important Areas, and to prevent the creation of new Noise Important Areas; protect tranquil areas from impact, including cumulative impact.	
<b>Material Assets</b>	Maximise resource efficiency in materials, energy, waste and water use by utilising sustainable construction and procurement methods, and ensuring appropriate ongoing maintenance of assets.	

## **5 What other assessments have been done?**

### **5.1 Health Impact Assessment (HIA)**

This assessment has been carried out as part of the SEA and considers the potential effects of transport and LTP4 on the health of Kent's residents and how this affects different groups in the community. Human Health is one of the SEA Objectives and is considered throughout the SEA.

### **5.2 Habitats Regulations Assessment (HRA)**

This assessment has been carried out as part of the SEA and considers the potential effects of transport and LTP4 on the sites of European importance to nature conservation across Kent. Biodiversity, Flora and Fauna is one of the SEA Objectives and is considered throughout the SEA.

### **5.3 Equality Impact Assessment (EqIA)**

KCC has carried out an Equality Impact Assessment of LTP4. This looks at the possible impacts of LTP4 on different protected characteristics, mainly focusing on race, gender, age, religion, disability and sexual orientation. This is appended to the Environmental Report.

## **6 The development of the Transport Strategy for 2016-2031**

KCC's transport Ambition, Outcomes and Policies have been established taking into account local transport and environmental challenges for Kent, and have informed the development of a long term transport strategy covering the period 2016-2031.

As part of the SEA a number of Options for funding allocation have been assessed:

1. Retain existing prioritisation methodology from LTP3 and the funding prioritised spatially as well as being unequally allocated among themes GWG 45%; 15% others; 10% life in Kent (in the context of LTP4 policy outcomes).
2. Use the LTP4 revised prioritisation methodology and equally weight/equally prioritise outcomes – i.e. 20% equal funding allocation.
3. Use the LTP4 revised prioritisation methodology and give a priority order to the outcomes and weight them differently – i.e. 40% Outcome 1; 15% other outcomes.
4. Use the LTP4 revised prioritisation methodology and give a priority order to the outcomes and weight them differently – i.e. 55% Outcome 1; 0% Outcome 3; 15% other outcomes.

The SEA noted that Options 2 and 3 were best as they have no negative environmental effects. Although Option 2 was assessed as being the most environmentally favourable, it is acknowledged that the main focus of LTP4 is 'Delivering Growth without Gridlock'. It is therefore accepted that KCC's preferred Option 3 – which delivers greater funding for Outcome 1 while not causing significant negative impacts on the SEA Objectives – is the appropriate choice for the funding allocation.

## 7 The key priority areas for local transport in Kent

The priority areas identified by LTP4 are presented in Table 3, below.

Table 3: LTP4's Priorities

Type	Extent	Priorities	Funding
<b>Strategic</b>	National	Enabling Growth in the Thames Gateway New Lower Thames Crossing Bifurcation of Port Traffic Port Expansion A Solution to Operation Stack Provision for Overnight Lorry Parking	Primary Funding Source(s)
	Regional	International Station Signalling (Ashford Spurs) Journey Time Improvements and Thanet Parkway Railway Station Rail Improvements Bus Improvements	Central Government – KCC is not the key proponent of the scheme
<b>Non-strategic</b>	Countywide	Road Safety Highways Maintenance & Asset Management Home to School Transport Active Travel Public Rights of Way Sustainable Transport Aviation	Central Government (LGF and allocated funding blocks) – KCC is often the key proponent of or major stakeholder in the scheme
	District	District Priorities are more localised proposals that may or may not be limited to each district – they are not listed exhaustively within LTP4	Central Government (LGF) – KCC is often the key proponent of or major stakeholder in the scheme ITP – KCC is often the key proponent of the scheme Other sources external to KCC's influence

## **8 Predicted Environmental Effects of LTP4**

The full assessment matrices for these are presented in Appendices E to H of the SEA Environmental Report. In accordance with a precautionary approach, for each matrix the lowest score has been taken as representative of the likely potential impact of LTP4 on the environment. Although the assessment of LTP4's Outcomes, Policies, Priorities and VFM Prioritisation Matrix indicates that no major (i.e. significant) negative effects on the SEA Objectives will arise, a number of minor negative potential effects have been identified. It has not been necessary to develop and assess alternatives to the policies; however suggestions for mitigation are put forward in the Environmental Report where appropriate.

### **8.1 Assessment Summary for LTP4**

#### ***8.1.1 Assessment Findings by LTP4 Aspect***

The assessment findings are summarised in Table 4, below. The environmental assessment of the Outcomes and Policies proposed by LTP4 indicates that overall these will have a minor negative environmental impact, principally as a result of Outcome 1 (Economic Growth and Minimised Congestion). Early consideration of environmental aspects and impacts is key to identifying and mitigating these, and it is proposed that by way of mitigation the ITP VFM matrix is routinely used at bid and business case stage for all priority transport schemes promoted by KCC and its Districts, irrespective of the funding source, in order to counteract the economic bias inherent in growth-centred proposals.

The environmental assessment of the Priorities put forward by LTP4 (those which did not feature in LTP3, and thus have not previously been subject to assessment) indicates that overall these will have a neutral environmental impact. The level of benefit in relation to schemes proposing modal shift will depend on the approach taken in developing the sustainable and active travel networks and the ways in which this are promoted to the population. LTP4 acknowledges that private motorised vehicles will remain the primary mode of transport within Kent therefore step-change is unlikely – however at individual level the benefits of such change must be appreciated.

Environmental assessment of the original and amended VFM prioritisation matrices noted that – though by taking the worst-case as the overall outcome this comes out as having a negligible negative effect – the Sustainable Travel indicator and the Population SEA Objective are predicted to benefit from minor positive effects as a result of using the revised methodology.

Table 4: Summary of Assessment Findings by LTP4 Aspect

<b>LTP4 Aspect</b>	<b>Findings</b>
Outcomes and Policies	Minor negative
Priorities	Neutral
VFM Prioritisation Matrix	Minor negative

### **8.1.2 Assessment Findings by SEA Objective**

All of the SEA objectives are assessed as receiving some positive effect as a result of LTP4's Outcomes, Policies, Priorities and VFM Prioritisation Matrix – however the overall findings (using precaution) are more modest (Table 5).

Table 5: Summary of Assessment Findings by SEA Objective

<b>SEA Objective</b>	<b>Findings</b>
Biodiversity, Flora & Fauna	Minor negative
Air Quality	Neutral
Human Health	Neutral
Climatic Factors	Neutral
Population	Minor positive
Water	Minor negative
Cultural Heritage	Minor negative
Landscape	Minor negative
Noise & Tranquillity	Minor negative
Material Assets	Neutral
Technology & Innovation	Neutral

It is important to drill down into the assessment results, and understand the areas in which the potential for minor negative impacts to occur has been identified; namely where there may be conflict between LTP4 Outcome 1 (Economic Growth and Minimised Congestion) and SEA Objectives for biodiversity, water, cultural heritage, landscape and noise & tranquillity. Avoidance and mitigation of these impacts will require particular care in the implementation of LTP4 and the prioritisation and assessment of individual schemes.

## **8.2 What mitigation measures will be used?**

No effects were deemed significant for LTP4, therefore the proposal of mitigation measures is not a statutory requirement. Nonetheless, a number of other mitigation and enhancement measures have been provided for minor negative effects. These can be found in the Environmental Report.

## **8.3 How will the environmental impacts of LTP4 be monitored?**

Monitoring the impacts of LTP4's implementation is not required by the legislation because no significant negative effects have been predicted as a result of this Strategic Environmental Assessment. It can be noted however that the Kent Environment Strategy forms a framework for the monitoring of relevant targets and indicators, and Kent is committed to producing an annual State of the Environment report.

## 9 Conclusions

It is considered that LTP4 performs adequately against the SEA Objectives, with no significant adverse effects being predicted. Moreover, there is evidence that some effects of LTP4 will be environmentally beneficial. It is however important to note the areas in which potential for negligible and minor negative impacts to occur have been identified, namely:

- Outcomes & Policies – minor negative – conflict between Outcome 1 and biodiversity, water, cultural heritage, landscape, and noise & tranquillity.
- VFM Prioritisation – negligible negative – conflict between Safety and Noise & Tranquillity, in the form of the potential hazard to the public associated with low noise vehicles.

Avoidance and mitigation of these impacts will require particular care in the implementation of LTP4 and the prioritisation and assessment of individual schemes.