

# Transport Business Case Report

## Kent Sustainable Access to Employment & Education

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## **1 Introduction**

### **1.1 SELEP Schemes – Business Case Preparation**

Amey have been commissioned by KCC (Kent County Council) to prepare Transport Business Cases, appropriate to the size and scope of each scheme, for each of the projects which have been allocated Local Growth Fund finance.

### **1.2 Purpose of Report**

The overall purpose of this report is to provide a Business Case covering the scheme. In doing so it draws on the results of the earlier Gap Analysis exercise and on the original detailed above.

It also forms the basis of a brief to deliver the required elements in order to assist Kent County Council in delivering these elements or in procuring resource to deliver them.

The report broadly follows the 5-Case Model for Transport Business Case preparation, incorporating design and environmental issues as well as a summary of the overall risks in terms of project delivery and project funding approval. This includes:

- The potential for the project to be called in for review by DfT or other bodies before it is delivered
- The potential for challenge from stakeholders which may jeopardise or delay the project
- The potential that a subsequent review of the project after implementation may identify issues relating to the delivery of overall outcomes (e.g. job creation or transport modal shift)

### **1.3 Specific Scheme**

This scheme is entitled

*Sustainable Access to Education and Employment*

This describes the function of the proposal, though the scheme itself involves the delivery of rights of way improvements in Kent, generally complementary to housing, employment and educational developments and/or other investments such as related highway and rail schemes. Developer funding is available for many schemes of this nature and the LGF funds are designed to complement these and deliver more comprehensive and effective schemes.

## **2 Scheme Summary**

### **2.1 Introduction to Project**

The preparation of a Rights of Way Improvement Plan (ROWIP) is a statutory duty set out in the Countryside and Rights of Way Act 2000. Under LTP-2, the ROWIP was integrated with other local transport planning and delivery. The Kent County Council ROWIP (2013-2017) is entitled the Countryside and Coastal Access Improvement Plan and is geared towards:

- Helping the Kent economy to grow
- Tackling disadvantage
- Putting the citizen in control

These goals are complementary to the SELEP Strategic Economic Plan (SEP) detailed in Section 3 (Strategic Case). In order to maximise the benefit from schemes and align closely to the development of jobs and housing in Kent, ROWIP schemes are generally linked to complementary schemes and funding such as Section 106 (Town and Country Planning Act). Schemes are selected on an annual basis against criteria geared towards the strategic goals of Kent County Council, using the Intelligent Investment Tool.

Since the schemes actually funded and delivered under the ROWIP will vary from year to year, this Transport Business Case has been prepared using an example scheme. This has been subjected to an appraisal in its own right, though it is important to recognise that this provides only a partial picture of the value for money since other schemes will inevitably deliver slightly different benefits. This approach is illustrated in the Figure 5 – Scheme Causal Chain and Figure 6 - Appraisal Flowchart.

The scheme selected as an example is the Loose Valley scheme to the south of Maidstone. This provides an excellent and typical example of a ROWIP scheme designed to create a network of sustainable and active travel opportunities and to generate modal shift away from motorised transport within a new development.

The scheme involves upgrading of footpaths and quiet roads to create a Loose Valley “Greenway”. This provides a shared use pedestrian/cycle route between the Loose Valley and Maidstone Town Centre, serving locations such as schools along the route.



The route utilises a well-defined and already attractive corridor, enabling users to avoid heavily trafficked areas subject to poor air quality. It connects Loose County Primary school, Loose Village and South Borough Primary school with both existing housing and a number of sites allocated for residential development to the North of Cripple Street, Loose.

It also links with the Medway Cycleway scheme at Tovil, helping provide a comprehensive walk and cycle network in the Maidstone area.

The scheme will reduce the revenue costs of maintaining the existing rights of way network in the area. By shifting some trips away from car, the scheme will help address transport congestion in the Loose area and in turn help unlock housing sites which otherwise may be unviable because of the additional traffic likely to be generated. In this the scheme complements other transport interventions in the area.

The Loose Scheme is scheduled for delivery during year 1 (2015/16), with as yet unidentified (though similar) schemes brought forward for subsequent years. These will be selected using the Intelligent Investment Tool previously used to select the Loose scheme for funding.

## 2.2 Project Roles

Role	Name
KCC Project Manager for SELEP schemes	Mary Gillett
KCC Commissioning Officer for specific scheme (Project Sponsor)	Colin Finch
Amey Project Manager for SELEP schemes	Stephen Whittaker
Amey Highway Design Lead	Ian Cook
Amey Environmental Lead	Ian Fuller
Amey contacts for specific scheme Business Case  Highway Design Environmental	Neil Anderson

## 2.3 Category of Transport Business Case

With a projected expenditure totalling £1.2m the scheme is categorised as 'small'. The Year 1 delivery (Loose) is £142,000, including £22,000 of Section 106 funding.

The project already has Growth Fund allocated (£0.9m), along with a committed £300,000 Section 106 contribution (jointly through the 12 District and Borough councils).

## **2.4 Overall Summary of Gap Analysis Exercise**

The example scheme is fairly well advanced and the process to select and deliver future schemes is well established. Since no land acquisition or planning issues are involved, there are no significant identified gaps which would jeopardise this scheme. There are some remaining design/delivery risks, including:

- Detailed design and associated costing issues
- Environmental issues, including the relationship with the Loose Valley.

There are some additional gaps in the business case and scheme appraisal elements, though these must be seen in the context that this 'small' scheme should only require a light touch appraisal which is generally recognised as being based on:

- A narrative argument supported where possible with existing information
- The strategic fit of the scheme, which is already well established in this case in relation to supporting housing and employment growth in the area
- Complementary support for larger schemes, which in this case includes the housing developments in the area.

No traffic modelling work is required, though the use of the Active Travel elements of WebTAG will assist in appraising the scheme. The WHO HEAT toolkit, DfT CO2 Toolkit and WebTAG journey quality elements can be used to support the case.

## **2.5 The Transport Business Case**

The UK Treasury 'Green Book' sets out a process for presenting the business case for investment schemes involving public funds. This approach involves three stages:

### ***Strategic Outline Case (SOC)***

This is the scoping stage of the investment process and is the current stage of the A1079 dualling proposal. The purpose of the SOC is to confirm the strategic context of the investment; to make a robust case for change; and to provide stakeholders and customers with an indication of the proposed way forward, together with indicative costs. Since an earlier pre-feasibility review has already established that the scheme can achieve an economic benefit, the SOC in this case takes account of this in the context of the modified design. More detailed design work will be conducted as the Transport Business Case progresses.

### ***Outline Business Case (OBC)***

This is the detailed planning phase of the investment, revisiting the OBC in more detail and to identify a preferred option which demonstrably optimises value for money. It also sets out the likely approach to funding; demonstrates its affordability; and details the supporting procurement strategy, together with management arrangements for the successful rollout of the scheme.

### ***Full Business Case (FBC)***

This takes place within the procurement phase of the project, though before a formal decision to proceed has been made and prior to the formal signing of contracts and the procurement of goods and services. The purpose of the FBC is to revisit the OBC and record the findings of the subsequent procurement process. It also sets out the recommendation for an affordable solution which continues to optimise VFM, and includes detailed arrangements for the successful delivery of goods and implementation of services from the recommended supplier.

#### ***2.5.1 5-Case Model***

The Transport Business Case process is designed to ensure that investments are directed at the right schemes and that these are managed and delivered in the best way. This ensures that transport investment addresses important issues in an effective way, delivering value for money.

The core of each stage of the Transport Business Case is the 5-Case Model which ensures that schemes:

- Are supported by a robust **case for change** that fits with wider public policy objectives – the 'strategic case';
- Demonstrate **value for money** – the 'economic case';
- Are **commercially viable** – the 'commercial case';
- Are **financially affordable** – the 'financial case'; and
- Are **achievable** – the 'management case'.

This document uses this 5-case model in an appropriate and proportionate way to demonstrate the merit of investing in the proposed Maidstone Cycleway scheme.

## **2.6 Context of the Transport Business Case**

Currently promoters of all schemes involving an investment of public funds over £5m ('major schemes') are required to prepare and submit a Transport Business Case. Previously a Business Case would be submitted to the Department for Transport (DfT).

Recent Government policy changes have involved the devolution of decision-making for smaller major schemes to Local Enterprise Partnerships (LEPs). These bodies are designed to direct investment for an area based on economic priorities set through a partnership which is private-sector led. Kent County Council is in the South East LEP (SELEP) area.

The devolved funding arrangements were put in place in July 2014 through the Local Growth Deal announcements, including devolution of funds to the SELEP.

This Transport Business Case will be submitted to the SELEP effectively forms a bid to request confirmation of the already allocated LGF funding for the scheme.

## **2.7 Loose Valley Greenway Scheme Description**

The overall scheme presented in this Business Case is Kent-wide, providing complementary rights of way improvements which will enable access to employment, education or other facilities, linked to housing and other developments.

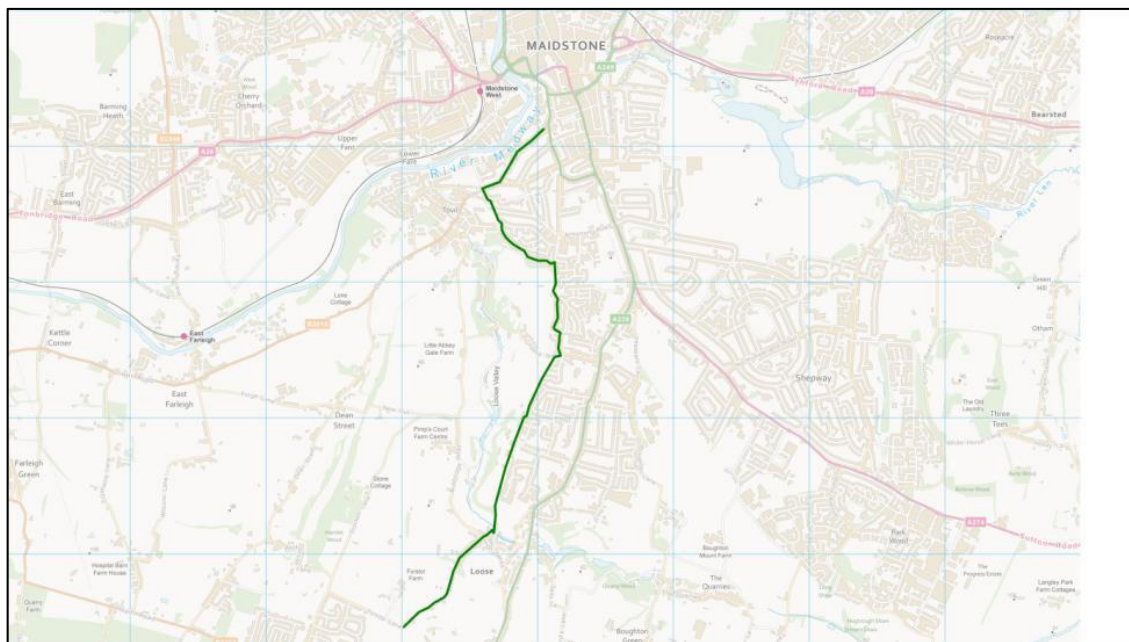
The actual schemes funded will vary year to year, chosen using an Intelligent Investment Tool. This ensures that resources are targeted on the most effective schemes in terms of delivery of improved access to employment and education.

In order to provide an example which enables the Business Case and associated appraisal to be developed, the Loose Valley Greenway scheme has been selected. This scheme will be funded during 2015/16, with other schemes to be selected and delivered in subsequent years.

The Loose Valley Greenway scheme is located in the Maidstone area, linking housing around the Loose Valley itself with Maidstone via the River Medway Path which is itself the subject of an LGF-funded scheme. This will provide access to schools, employment sites and other facilities as well as providing an enhanced leisure route for residents in the wider Maidstone area, including tourists and other visitors. The route itself follows a number of existing rights of way and quiet roads. The improvements proposed will deliver a route suitable for use year-round by both walkers and cyclists. Although paths along the Loose Valley stream itself exist, many are unsuitable for upgrading, especially in view of the historically important nature and sensitive ecology of the stream, mill ponds and buildings.

By transferring trips from car to walk and cycle, the Loose Valley Greenway scheme will complement the other schemes in the Maidstone area by providing walk and cycle access which will help 'lock in' the benefits of the capacity improvement.

Figure 1 below indicates the location of the Loose Valley scheme.



**Figure 1 – Suggested Loose Valley Greenway Scheme Route**

## **2.8 Existing Situation, Proposed Improvements and Options**

The ROWIP sets out improvement plans for rights of way across Kent. As detailed previously, the plans are focused on improving important links, especially those providing links to employment and education. Inevitably there are significant demands from communities for improvements to rights of way and there are currently approximately 2,500 requested schemes across the county. In order to prioritise schemes, an Intelligent Investment Tool (IIT) has been developed which ensures that funds are allocated to schemes most aligned to Kent strategies, including the SEP, the LTP and *Growth without Gridlock*. This process will be applied on an ongoing basis to ensure that LGF resources are applied to those schemes which contribute most to Kent's economic development. One key element of the IIT is in prioritising schemes which are linked to employment and housing development, as well as those with complementary funding (e.g. Section 106 developer funding) available.

As an example to demonstrate how this process will be applied, the scheme selected for delivery in 2015/16 (the Loose Greenway) is presented as an example.

The Loose Valley is steep-sided with a fast stream which was in the past dammed to provide water power for paper and wool industries. Existing footpaths and quiet roads provide a route along the river which serves as a leisure facility as well as the potential to link existing housing with schools and workplaces.





**Figure 2 - Existing Path in Loose Valley**

Although there is an established route along the valley, it is currently somewhat disjointed, poorly maintained and badly signed. Whilst this does not preclude its current use for leisure, a much more coherent approach is required in order to attract additional commuters and children travelling to school.

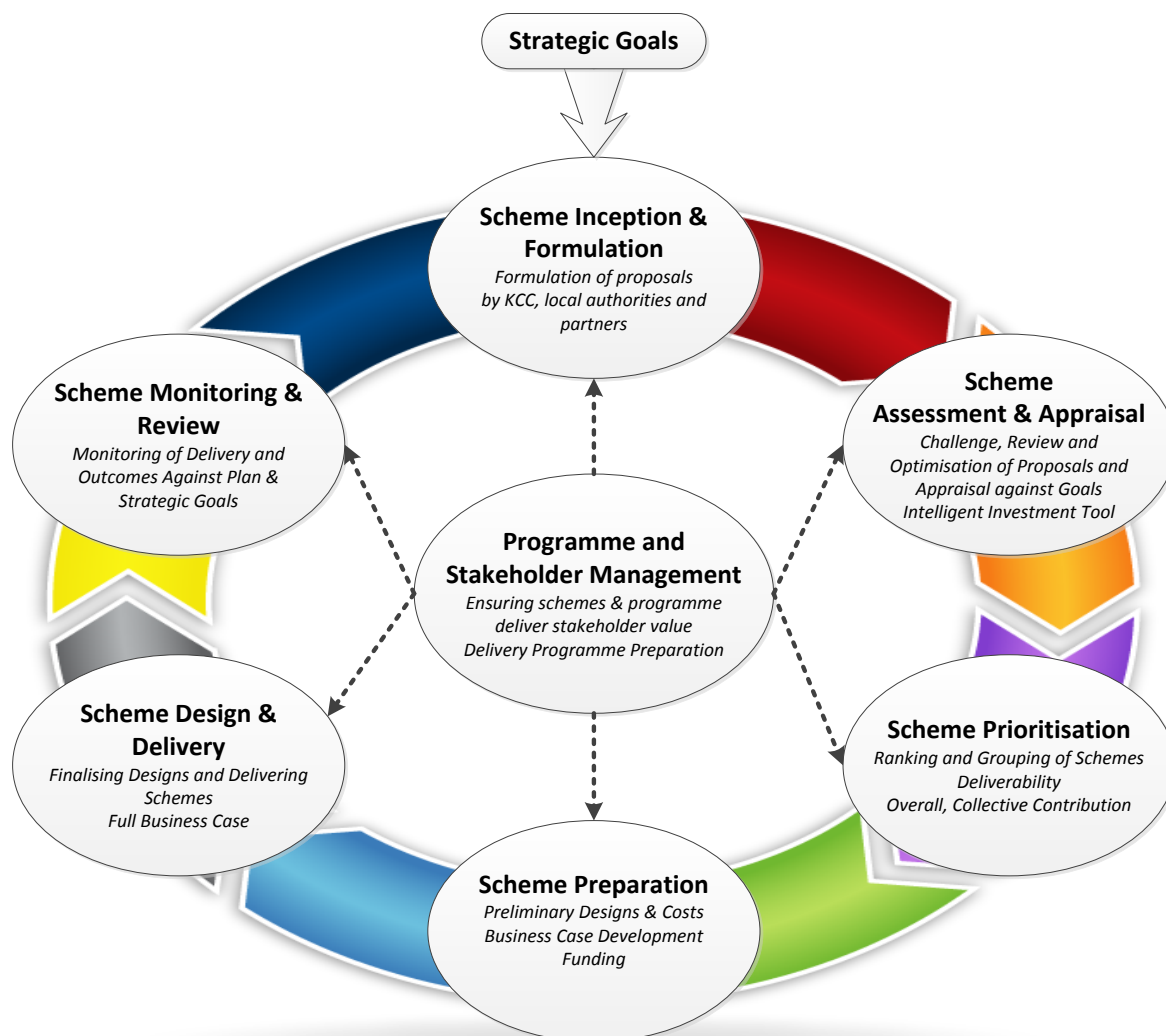
This involves:

- Improving the surface of existing off-road sections to make them more usable (including by mobility impaired users) and to reduce ongoing maintenance
- Improving fencing and other features to address safety and accessibility issues
- Improving links to the route from nearby housing, school and employment locations
- Improving signage along the route, including where it uses quiet roads and where it links to schools, housing and employment locations
- Minor road safety and access improvements on the 'quiet road' sections

Although at a detailed level, as the project is delivered, there will be small adjustments made to the scheme to take account of local feedback, there are no significant scheme options beside 'do nothing' versus 'do scheme'.

## 2.9 Developing and Managing the Programme

Although the Business Case is focused on the Year 1 Loose Valley scheme, this must be seen in the context of the programme as a whole. Section 4.6 demonstrates how the experience from schemes in Kent and elsewhere has been used to benchmark the outcomes of the Loose Valley scheme. This scheme has been selected using the Intelligent Investment Tool within a management cycle set out in Figure 3.



**Figure 3 - ROWIP Management Cycle**



This planning and management cycle takes account of strategic and stakeholder goals, ensuring a programme which identifies and delivers the most important schemes. Using Causal Chains (Strategic Case), Benefits Realisation and Scheme Monitoring (Management Case) ensures that the learning from each scheme builds on and helps refine the future programme. This experience has been used within this Business Case to determine the expected benefits from the Loose Valley scheme, in the context of the benchmarking in Section 4.6.

The delivery of schemes, the actual outcomes of these and the future programme are set out in an Annual Report which is publicly available and circulated to key stakeholders.

## 2.10 Programme Currently Under Consideration

As set out above, the annual planning and management cycle, together with annual reporting, is a key imperative. This annual cycle, linked to housing, employment and other development rollout, is essential in ensuring that funds are applied to the most appropriate schemes. This linkage also ensures that the committed developer funds (Section 106) are applied appropriately.

However, given the likely programme of development over the next six years, an indicative list of high-scoring schemes has been drawn up using the Intelligent Investment Tool, based on a long-list of several hundred schemes. This list will be refined during 2015/16 to identify the schemes for delivery in 2016/17. Any new schemes will be appraised using the IIT and added to the list if their scores are sufficiently high. The list includes a moderate degree of over-programming (25%).

Scheme	Year	Estimated Cost
Loose Greenway	1	£200,000
Staplehurst links to station new creations	Unallocated	£155,000
Harrietsham Links to station new creations	Unallocated	£206,000
Finbury, Ashford, development links to town	Unallocated	£370,000
Thames Tow path	Unallocated	£82,000
Deal station links New creations	Unallocated	Estimate not complete
Powder Mills, Tonbridge, Links to station, town and schools	Unallocated	£195,000
Dover Gateway to White Cliffs	Unallocated	£82,000
Leybourne Grange, development link to new KCC school	Unallocated	£183,000
Nichols' quarry development, access to schools (Contribution to wider development scheme)	Unallocated	£200,000

## **3 Strategic Case**

### **3.1 Purpose of the Proposed Investment**

The overall purpose of the investment is to encourage cycling and walking by providing attractive, direct routes for cyclists and pedestrians to access employment, education and other facilities. In the example scheme, this involves facilities along the Loose Valley corridor and in Maidstone Town Centre.

By encouraging the use of active travel (cycling and walking) this will provide health benefits for existing and future resident in the area.

By attracting people to use cycling and walking, alongside complementary LSTF schemes, the scheme will help 'lock in' the benefits of highway investments and will free up road space. This in turn will enable the sustainable growth of Kent as set out in the Local Plans of the constituent local authorities. In the case of the example scheme (Loose) this is in relation to Maidstone and its surrounding area, supporting the housing and employment growth plans set out in the Local Plans of Maidstone Borough Council (Consultation Draft).

These goals are to be achieved with reference to other important factors such as the local environment, the safety of road users and any impact on drivers of climate change.

Figure 5 sets out these elements in a Causal Chain.

### **3.2 Strategic Fit – National Transport Priorities**

The Government has long-term objectives aimed at improving the economy, environment and society. These are the three tenets against which major transport infrastructure projects are assessed, and will continue to be assessed in future.

In its National Infrastructure Plan 2014, the Government presented its vision for the UK transport system:

- Transport infrastructure can play a vital role in driving economic growth by improving the links that help to move goods and people around and by supporting the balanced, dynamic and low-carbon economy that is essential for future prosperity;

- Local transport systems must enable suburban areas to grow. The transport network must support good value and rapid movement of goods around the country. The transport system must be efficient but also resilient and responsive to infrequent and unexpected pressures; and
- Airports and ports are the gateways to international trade and the Government will work to improve the road and rail connectivity to major ports and airports.

Local sustainable transport schemes such as the Medway Cycleway complement larger schemes and in themselves provide access to jobs and longer-distance routes. Sustainable transport, by transferring trips from car, also reduces carbon emissions and helps improve local air quality, both of which are important National policies. Since sustainable transport schemes 'lock in' the benefits of highway schemes and complement rail schemes, they are entirely supportive of the wider National connectivity and economic agendas.

### **3.3 Strategic Fit - National Planning Policy Framework**

The National Planning Framework (NPPF) was published in March 2012 and is designed to set out how planning authorities are expected to enable sustainable development. In order to achieve this it sets out an overarching presumption in favour of sustainable development, taking account of the three dimensions of:

- An economic role relating to building a strong, responsive and competitive economy. In relation to the planning system this is fundamentally about ensuring that sufficient land is available to enable job creation, together with the infrastructure to support this
- A social role in supporting strong, vibrant and healthy communities, with an emphasis on the provision of housing in the context of high-quality built environment and access to local services
- An environmental role in terms of protecting and enhancing the local environment and helping mitigate and adapt to climate change

Transport and connectivity play a key role in all three of these dimensions and the NPPF contains a section which outlines this and sets out a number of key requirements in terms of planning and decision-making by local planning authorities. Much of this is about limiting the impacts of developments and improving their long-term sustainability. In relation to this project, this includes:

- The use of technology and the balancing of land use to reduce the need to travel and minimise journey lengths (e.g. walking to school and working from homes or local hubs)
- Balancing the transport system in favour of sustainable models for the movement of goods and people, including priority to pedestrian and cycle movements and access to high quality public transport
- Creating safe and secure layouts which minimise conflicts between traffic and cyclists or pedestrians, avoiding street clutter
- Encouraging the reduction of congestion and of greenhouse gas emissions
- The effective use of tools including Transport Statements (TS), Transport Assessments (TA) and Travel Plans (TP)
- Protection of sites and routes which could be critical in developing infrastructure to widen transport choice
- Inclusivity, including meeting the needs of disabled people

This should be seen in the context of the imperatives for economic growth as set out in the South East LEP Growth Deal and Strategic Economic Plan.

This proposal (including the Loose example scheme), involving the provision of a high-quality cycle and walk routes designed to attract commuting and other trips is clearly consistent with this National policy.

### **3.4 Strategic Fit – Kent Local Transport Plan**

Kent is South East England's fastest recovering region and has great potential for successful economic growth. In the last 20 years, Kent has seen 100,000 more people living in the county, housing stock increase by over 60,000 homes and 130,000 more cars on roads. This pace of change is set to accelerate further over the next 20 years with a projected 8 per cent population increase, accompanied by the presence of two of the UK's four Growth Areas in Thames Gateway and Ashford.

Local growth alone is predicted to result in 250,000 extra journeys on Kent's roads by 2026. Coupled with a forecast increase in international traffic this leads to tackling congestion being regarded as one of the main priorities for Kent. KCC's framework for regeneration "Unlocking Kent's Potential" defines what Kent should look like in 20 years' time and includes as 1 of its 5 priorities "delivering growth without transport gridlock" - by designing communities that will encourage walking, cycling, and healthy leisure activities. Based on this Growth without gridlock: A transport delivery plan for Kent (**see Section 3.5**) establishes transport priorities for the next 20 to 30 years to support Kent's Environment Strategy target of reducing greenhouse gas emissions by 20% by 2020 and 80% by 2050.

Kent's third "Local Transport Plan (LTP3), 2011-16" sets out KCC's Strategy and Implementation Plans for local transport investment in the short term. It proposes a new approach to prioritising investment in transport infrastructure in order to support housing and employment in Kent's Growth Areas and Growth Points, make Kent a safer and healthier county, improve access to jobs and services, especially in disadvantaged areas, and cut carbon emissions. Its planned measures are prioritised under five themes: Growth Without Gridlock, A Safer and Healthier County, Supporting Independence, Tackling a Changing Climate and Enjoying Life in Kent. Under each theme the Plan prioritises a range of sustainable transport initiatives, by area and by mode. Whilst some of these initiatives have already been put in place or are in progress, a number of them provide the basis for the proposals prioritised by the SE LEP for capital investment support, including all those for sustainable transport. These initiatives have also subsequently been aligned with the local area development and regeneration plan produced or in the process of being produced by the 12 District or Borough Councils in the County.

The ROWIP and the Loose Greenway example scheme strongly fit with these local policies.

### **3.5 Strategic Fit – Growth without Gridlock**

Growth without Gridlock is the delivery plan for transport investment in Kent. It was published in 2010. It sets out the priorities for transport investment and how these will be delivered in order to meet the current and future demands of the County in the context of its crucial role in the UK and European economy.

The overarching goal of Growth without Gridlock is to enable growth and prosperity for Kent and the UK as a whole. Although predating the South-East LEP Strategic Economic Plan, the key elements of both are entirely in accord. This has enabled the development of an effective package of transport schemes to be brought forward as part of the Local Growth Fund investment, including the Maidstone Cycleway scheme.

Growth without Gridlock recognises that road transport is responsible for around 30% of Kent's greenhouse gas emissions and that the way forward is to provide low carbon transport options allied with better planning to reduce the need to travel, which in turn will support economic growth, housing growth and tackle climate change.

The Plan states that: "the private car will continue to remain the most popular and dominant form of transport for our residents and these expectations and demands increase pressure on our transport network, on our environment and on us as individuals. This reliance is also the reason why our road network is congested and in response our vision is to create a high quality integrated transport network which will create opportunities for real transport choice as well as enabling economic growth and regeneration". Some of the key transport challenges identified by the Plan are:

- Transferring existing and new car trips onto public transport, walking and cycling, especially for short journeys;
- Tackling congestion hotspots;
- Integrating rail services and improving connectivity between stations; and
- Providing sufficient transport infrastructure to mitigate the impact of the planned development including walking and cycling routes.

3.5.1 Maidstone is identified in *Growth without Gridlock* as a Growth Point, with ambitious plans for growth in housing and jobs (see 3.8 below). *Growth without Gridlock* identifies both congestion and air quality issues which will constrain the planned growth. In particular, there are congestion 'hot-spots' in and around the town centre. These will be addressed by the Loose example scheme and similar issues will be addressed by future schemes funded within the ROWIP programme.

3.5.2 A number of specific proposals are identified to address this. In relation to the ROWIP schemes the relevant action, to which this scheme contributes significantly, is:

*Improved walking and cycling networks, supported by travel plan requirements for major new developments*

- 3.5.3 The delivery of this imperative by this scheme, in the context of wider schemes, is set out in **Figure 5 – Scheme Causal Chain**. The scheme is complementary to the planned improvements to the highway, public transport and rail infrastructure, including schemes which are also in receipt of Local Growth Funding through SELEP. By reducing the number of car trips made, especially at peak time, the cycleway will help 'lock in' the benefits of these investments, providing better value from the LGF programme as a whole. The Loose scheme is itself complemented by the Local Sustainable Transport Fund scheme (also LGF funded) which will encourage people to use the route, further improving its effectiveness. Similar synergies will be sought through future ROWIP schemes, as incorporated within the Intelligent Investment Tool used to select schemes.

### **3.6 Strategic Fit - South Eastern Local Enterprise Partnership**

Local Enterprise Partnerships (LEPs) are voluntary partnerships between businesses and local authorities which are intended to determine economic priorities for an area and to take a lead in fostering economic growth and creating jobs. There are 39 LEPs in England.

The South East LEP (SELEP) is one of the biggest, encompassing Thurrock, Essex and Southend to the north of the Thames, along with East Sussex, Kent and Medway to the south.

Each of the LEPs was invited by Government to submit Strategic Economic Plans (see Section 3.7) as the basis for negotiating a portion of the Local Growth Fund (LGF) to be allocated over the period between 2015 and 2021. Although the initial amount, to be announced in July 2014, is £1.4bn, this funding stream is expected to be up to £2bn per year for the six year period. Clearly this will depend on the Government Spending Reviews and on any change of Government on 2015.

This process is linked to the devolution of local major scheme funding decisions, previously decided by DfT, to LEPs. Although the precise details are not yet clear, the application of the Transport Business Case process and the transport appraisal guidance (WebTAG) is expected to continue, though their use is intended to be 'proportionate'.

The SELEP Growth Deal and Strategic Economic Plan emphasises the importance of 'investment in our transport growth corridors/areas'. This is alongside the four other themes of 'building on our economic strengths'; 'boosting productivity'; 'improving skills' and 'building more houses and re-building confidence'. Clearly in each of these four themes, transport and connectivity have an additional role to play.

### **3.7 Strategic Fit – Strategic Economic Plan**

Published in March 2014, the SELEP Strategic Economic Plan (SEP) sets out the investment strategy for the area. This document includes the SELEP bid for Local Growth Fund, the primary source of funding for this project.

A component element of this is the Kent and Medway Growth Deal which sets out plans for the public and private sectors intend to invest over £80 million each year for the next six years to unlock our potential through:

- Substantially increasing the delivery of housing and commercial developments;
- Delivering transport and broadband infrastructure to unlock growth;
- Backing business expansion through better access to finance and support; and
- Delivering the skills that the local economy needs.

The SEP involves delivering the biggest local transport programme in the country to realise the potential of the growth corridors and sites, transforming connectivity for our businesses and residents unlocking jobs and homes, and bringing substantial benefits to the UK economy;

As part of the overall growth programme for 200,000 new private sector jobs and 100,000 new homes, there are specific plans for 7,000 jobs and 8,500 homes on the London-Maidstone-Ashford Corridor over a six-year period.

These plans are supported through a programme of transport investment. This in turn includes:

- A request for Government commitment to deliver specific national rail network, motorway, and national trunk road investments by agreed dates and;
- A corresponding commitment from local authorities and private developers to meet a significant proportion of the costs



These are complemented by proposals for local sustainable transport funding to ensure that growth occurs in a sustainable manner, including the 'locking in' of benefits from highway and other investments.

£154.2m of SEP Local Growth Fund investment in transport schemes over the six year period will be focused on capital investments in sustainable transport measures, and in 2015/16 this amounts to £43.6m. The ROWIP example scheme (referred to as *Sustainable Access to Education and Employment*) is a part of this programme of complementary sustainable transport investment.

#### *Maidstone Programme*

The SEP recognises that Maidstone's future growth will require significant investment in transport infrastructure, which is vital to sustain the town's role as a major retail and employment centre. The key elements taken forward as part of the LGF settlement, designed to unlock sites for employment and housing development are:

- A gyratory relief scheme to overcome the severe constraints inherent in the highway network;
- The Medway Cycleway
- A package of complementary Local Sustainable Transport Funding initiatives as part of the wider West Kent LSTF scheme. The Loose Valley scheme in turn complements this.

A further scheme involving an integrated transport package (including key junction and road capacity improvements and enhanced public transport) has not been taken forward at this time.

#### *Appraisal and Business Case Preparation*

The SEP sets out the process through which schemes will be identified, appraised and prioritised for delivery. This process is based on the HM Treasury 5-Case Model. For transport schemes, the SELEP has adopted the Assurance Framework agreed between the former Local Transport Board and the Department for Transport (DfT). For smaller schemes, this sets out a 'light touch' approach geared towards the following:

- Value for Money – based on BCR and wider Economic Benefits.
- Environmental and Community Impact – Potential benefits and adverse impacts.
- Contribution to Objectives – LTP, SE LEP and SELTB Objectives.

- Deliverability – affordability. Practicality, key risks, stakeholder and public support

This Transport Business Case is designed to conform to this process.

### **3.8 Strategic Fit – Local Plans (Housing and Employment Growth)**

Growth plans in the Maidstone area are ambitious and contribute to the targets set out in the SEP. It is important that these developments take place in a sustainable manner.

Along with the National Planning Framework (see Section 3.3), the Town and Country Planning Act 2012 set out requirements for Local Planning Authorities to develop and adopt Local Plans which set out the strategic priorities for the development of the area. This process replaced the previous arrangements put in place in 2004 for Local Development Frameworks.

The Local Plan for Maidstone is still in preparation and some key elements, including the size and location of housing developments, have not been fully defined. Whilst this makes it difficult to be precise about the growth in trips which will be served by the Loose scheme, it is clear that significant growth (around 980 homes/year) will take place in the area and that many trips generated by existing and new housing developments will terminate at employment and education sites (including in Maidstone Town Centre) which are served by the route.

### **3.9 Case for Change - Rationale for the Scheme**

The key rationale for the overall ROWIP scheme is in its role in supporting the planned growth in housing and employment, helping ensure that this takes place in a sustainable manner. This is within the following context:

- Housing and employment growth (and resultant activities such as education and shopping) will generate additional trips in the area;
- Investment in the highway network is designed to cater for these additional trips, enabling the developments to take place;
- The benefits of these investments can be 'locked in' if a proportion of the trips can be undertaken by sustainable modes, including public transport, walking and cycling;
- This 'locking in' will ensure that growth can continue as planned and not become unsustainable through rising congestion

In order to achieve this, safe, attractive and direct routes for walkers and cyclists are required. This will attract users who would normally travel by car, especially if traffic-free routes can be designed to provide car-competitive journey times. The safe routes to school will also improve the safety and independence of children in the area.

The Loose Greenway example scheme demonstrates how the ROWIP/LGF funding, supplemented by Section 106 funding, provides for such traffic-free routes. However, the current network is disjointed, poorly signed and significantly dilapidated in places. The current alignment and quality of the existing paths precludes their use for commuting, especially during the winter and parental safety concerns will discourage use by children. The scheme will to address this by:

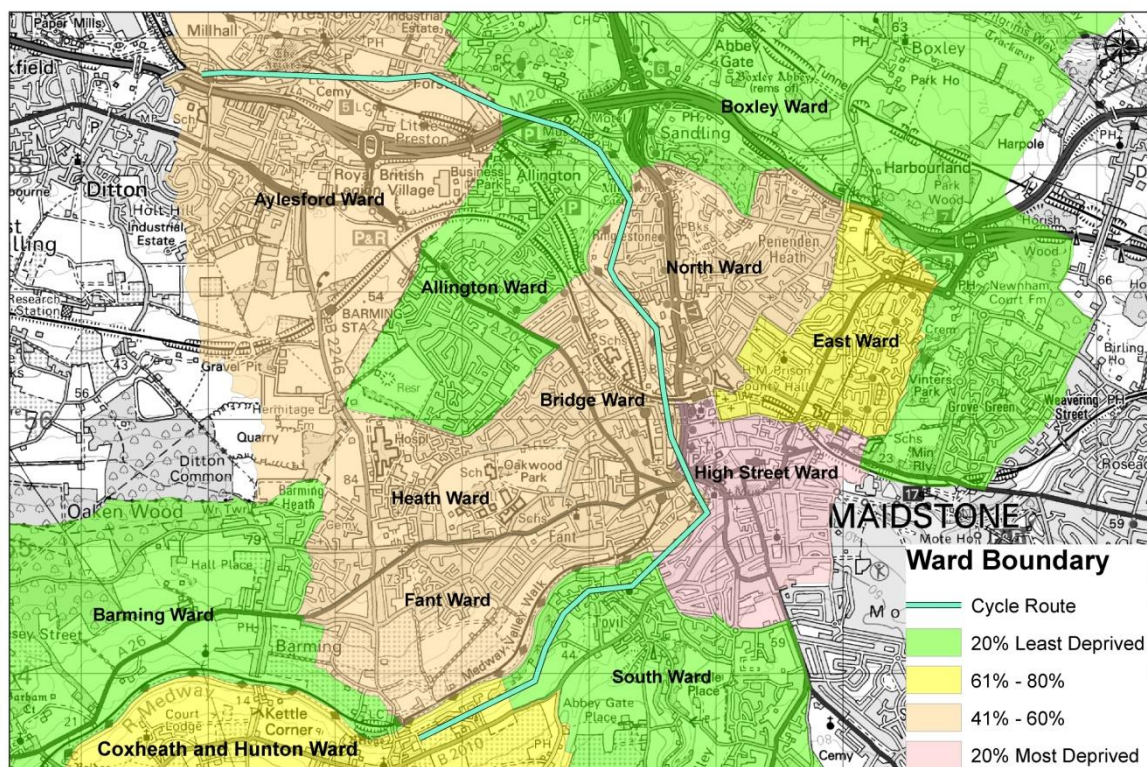
- Providing a high quality route which makes best of existing paths and quiet roads to avoid traffic and traffic congestion. This will provide car-competitive journey times for cyclists, attracting commuters and other users with time constraints;
- Linking into existing and planned housing, employment and education locations, including Maidstone Town Centre;
- Providing an attractive, direct route for all cyclists and pedestrians, whether travelling for work, education or leisure.

There are currently 7,126 households, 3,165 Business's and 7 schools close to the route. The Planned 10 year growth on the corridor includes 3,880 homes (980 new homes per year) with approximately 3,000 jobs The cycleway scheme will enable this housing/jobs growth to be achieved and to be achieved in a sustainable way. The carbon emissions generated by the new trips will also be

Active travel also provides major health benefits, both in terms of reduced mortality and better overall health, leading in turn to higher productivity. The example scheme will encourage cycling and walking, transferring many trips which would otherwise be made by car. The health benefits achieved by this are a significant part of the rationale for the scheme.

The route links Tovil, an area of relative deprivation, to the attractive Loose Valley, providing exercise and leisure opportunities as well safe, direct access to employment and education, enabling people to access jobs, training and other services without the need to own a car.

The importance of the route in relation to relatively deprived areas is shown through the Index of Multiple Deprivation map in Figure 4 below.



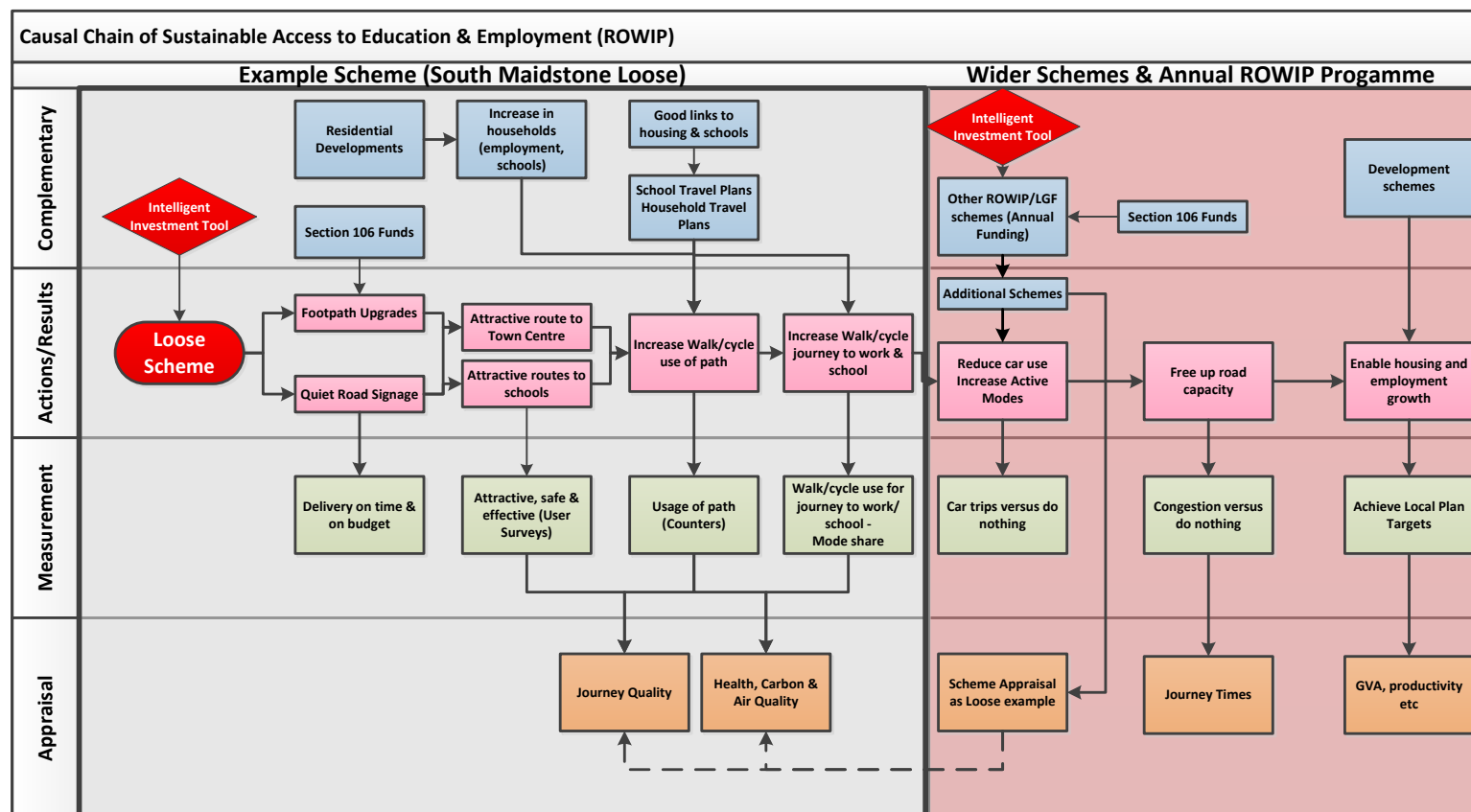
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**Figure 4 - Index of Multiple Deprivation**

The scheme is also designed to encourage leisure and tourism, including linkage to the NCN17 long-distance route. As well as further enabling active travel (with its health benefits), visitors to the area will help support local businesses, including those within Maidstone Town Centre.

### 3.10 Causal Chain

In order to present the scheme and its objectives in its overall context, a Causal Chain has been prepared.



**Figure 5 – Scheme Causal Chain**

**Table 1 - Summary of Appraisal Criteria (Example Scheme and Wider)**

	Impacts	Inclusion in Example Business Case
<b>Economy</b>	Business users & transport providers	Journey time based. Identified as a benefit but not quantified.
	Reliability impact on Business users	Journey time reliability identified as a benefit but not quantified.
	Regeneration	Housing and employment growth taken into account in the scheme justification
	Wider Impacts	
<b>Environmental</b>	Noise	Qualitative appraisal alongside other schemes
	Air Quality	
	Greenhouse gases	GHG calculated using DfT Carbon Toolkit
	Landscape	Landscape issues central to design of the route
	Townscape	Linkage to Maidstone town centre will be key part of design process
	Historic Environment	Not assessed at this stage
	Biodiversity	Biodiversity and water/riparian issues part of design of route
	Water Environment	



	Impacts	Inclusion in Example Business Case
<b>Social</b>	Commuting and Other users	Journey time based. Identified as a benefit but not quantified.
	Reliability impact on Commuting and Other users	Journey time reliability identified as a benefit but not quantified.
	Physical activity	Key element of scheme, appraised using WHO HEAT tool, plus adjustment for other benefits
	Journey quality	Calculated based on WebTAG guidance
	Accidents	Incorporated as qualitative factor and part of design
	Security	Incorporated as qualitative factor and important part of design
	Access to services	Improved journey times and reliability will enhance access. Scheme will improve non-car access to services, including rail stations.
	Affordability	Indication that scheme can be funded from Local Growth Fund & S106
	Severance	Not a significant factor in the example scheme
	Option and non-use values	Will have positive benefit, calculated as qualitative factor
<b>Public Accounts</b>	Cost to Broad Transport Budget	Encompassed within this SOC
	Indirect Tax Revenues	Encompassed within this SOC

### 3.11 Summary of Scheme Objectives

The scheme will provide an attractive, direct route (much of which is traffic-free) for walkers and cyclists to travel between housing and education and employment locations. It also provides a leisure route through this historically important area. The scheme itself runs between Loose Village and Tovil and links into existing paths and roads to provide good access to a large number of sites, including Maidstone Town Centre.

Current targets are 60,000 users per year by 2018. Usage will be encouraged by complementary measures, including publicity and travel plans.

Active travel will provide health benefits and the reduced car trips will reduce CO2 emissions. The Economic Case uses the WHO HEAT tool and the DfT Carbon Toolkit to calculate the most significant economic benefits.

This and other sustainable initiatives (including public transport and other walk/cycle improvements) will reduce car trips and complement highway investment, freeing up road space and improving overall journey times for all road users.

This freeing-up of road space will support the plans for growth in jobs and housing in the area, contributing to overall economic growth.

The above objectives are set out in the Causal Chain (see Figure 5) and are summarised in the table below which has been used for the initial Options Appraisal set out in Section 4.4. Note that these objectives relate to the example scheme and may be different for future ROWIP schemes.

**Table 2 - Scheme Objectives**

<p><b>Primary Objectives</b></p>	<p><b>1. Increase cycle and walk trips through the construction of the Loose Greenway</b></p> <ul style="list-style-type: none"> <li>• Increase journey to work by cycle/walk</li> <li>• Increase cycle/walk for other trips, including education and leisure</li> <li>• Estimated 60,000 new trips per year, based on experience of similar schemes</li> </ul>
<p><b>Secondary Objectives</b></p>	<p><b>2. Deliver a sustainable scheme</b></p> <ul style="list-style-type: none"> <li>• Limit long-term maintenance liabilities</li> </ul> <p><b>3. Delivery of an attractive, safe and effective scheme</b></p> <ul style="list-style-type: none"> <li>• Providing safety and security for all users</li> <li>• Providing safe, direct and attractive routes on the route and onto and off the cycleway at suitable points</li> </ul> <p><b>4. Enhance the local environment</b></p> <ul style="list-style-type: none"> <li>• Maintaining or improving the local environment around the scheme</li> <li>• Providing improved safe access to the environmental and historic assets in the area</li> </ul>

***Scheme Scope:***

- The scheme will deliver the route improvement, including undertaking all necessary actions to ensure its suitability for a riparian location. This encompasses environmental aspects, flood resilience, maintainability, safety, security, attractiveness and usability.
- Links into existing rights of way (including the highway network) are included within the scheme.
- Further links to the route from within development schemes (e.g. housing, employment, healthcare, leisure, retail, education etc. developments) are not included within the scheme but will be identified through the planning and development control processes to ensure that they are identified, funded and delivered separately in order to improve connections to the route.

- The selection of route has been undertaken in part to optimise the maintainability of the route. However, maintenance is not included in the scheme costs. Maintenance will be undertaken through established processes and budgets for highway and rights of way maintenance by Kent County Council.

### **3.12 Critical Success Factors (CSFs)**

The key CSFs for the Loose Greenway project, using the 5-Case Model headings are as follows:

#### **CSF1: Strategic Fit (Strategic Case)**

- Reduced car use and increased active travel;
- Enables sustainable development (housing; employment) to take place;
- Locks in benefits of other transport investments in Maidstone and surrounding area;
- Improved public health through active travel;
- Reduces CO<sub>2</sub> emissions;

#### **CSF 2: Value for Money (Economic Case)**

- Maximises return on investment, striking a balance between the cost of delivery and the cost to the economy of non-delivery.

#### **CSF 3: Achievability (Commercial Case)**

- Deliverable utilising current engineering solutions
- Limits long-term maintenance liabilities

#### **CSF 4: Affordability (Financial Case)**

- Deliverable within the likely capital funding available;
- Revenue liabilities for the option are affordable within current budgets.

#### **CRF 5: Timescale for Implementation (Management Case)**

- Deliverable within the timescale during which funding is likely to be available.

### **3.13 Stakeholders**

Stakeholders have been defined and analysed in relation to:

- All stakeholders, categorised in terms of their interest in the scheme how they will be engaged with and consulted through the design and delivery process
- Further analysis of stakeholders benefitting from the scheme. These scheme beneficiaries have been mapped against the scheme objectives, enabling consultation to be targeted effectively and assisting in framing the Benefits Realisation Plan for the scheme.



### **3.13.1 Stakeholder Categorisation**

Category	Detail
Beneficiary	Stakeholders which will receive some direct or indirect benefit from the scheme. For details see separate table
Affected	Stakeholders which are directly affected by the scheme in terms of its construction or operation
Interest	Stakeholders with some interest in the scheme though not affected directly by its construction or operation
Statutory	Stakeholders with a statutory interest in the scheme, its construction, operation or wider impacts
Funding	Stakeholders involved in the funding of the construction or operation of the scheme

### **3.13.2 Engagement Categories**

Category	Detail
Intensive consultation	Stakeholders who are directly affected by the scheme and whose agreement is required in order for the scheme to progress. Consultation throughout the design and implementation.
Consultation	Stakeholders who are affected by the scheme and can contribute to the success of its design, construction or operation. Consultation at key stages
Information	Stakeholders with some interest in the scheme or its use. Information to be provided at appropriate stages

***Stakeholder Matrix***

Stakeholder	Categories	Engagement and Consultation	Comments
Scheme users	Beneficiary	Consultation Information	Through established mechanisms.  Focus on scheme design, construction and operation
Rights of way users	Beneficiary Affected	Consultation Information	
Other road users	Beneficiary Affected	Information	
Wildlife groups	Interest	Consultation	
Access and rights of way groups (including cycling)	Interest	Consultation	
Disabled access groups and individuals	Interest Affected	Consultation	
Riparian landowners	Affected	Intensive consultation	Specific consultation dependent on interest in relation to scheme design
Other landowners	Affected	Intensive consultation	
Elected Members	Interest	Intensive consultation	
Local authorities	Beneficiary Statutory	Intensive consultation	County, District & Parish
NHS (& local authorities in relation to Public Health)	Beneficiary Statutory	Intensive consultation	All levels. May involve funding
Environment Agency	Statutory	Intensive consultation	Specific consultation
Recreational users	Beneficiary	Consultation	Through established mechanisms
Fishing users	Beneficiary	Consultation	

Stakeholder	Categories	Engagement and Consultation	Comments
Local Enterprise Partnership	Beneficiary Funding	Information	Through LGF Business Cases & progress reports
Developers	Beneficiary Affected	Consultation	Only as relevant to scheme
Residents adjoining route	Beneficiary Affected	Information	
Businesses adjoining route	Beneficiary Affected	Information	Travel plan contact as part of benefit realisation plan
Wider business community	Beneficiary	Information	As part of wider LGF consultation
Wider community	Beneficiary	Information	
Local taxpayers	Beneficiary	Information	
Tourists and visitors	Beneficiary	Information	Through established channels

### 3.13.3 Benefit Stakeholders and Relationship to Scheme Objectives

Investment Objectives	Main benefits Criteria by Stakeholder
<b>Investment Objective 1A</b> Increase the number and proportion of trips being made to work by walk and cycle;	<b>Users</b> Health benefits through active travel Financial benefits through less need to own or use a car Improved access to employment education etc. for those without cars <b>Other Road Users</b> Reduced congestion due to fewer car trips
<b>Investment Objective 1B</b> Increase the number and proportion of trips being made for other purposes by walk and cycle;	<b>Local Authorities, NHS and Local Enterprise Partnership</b> Public health benefits of active travel Locking in the decongestion benefits of transport investment in Maidstone area Improved attractiveness of the area for inward investment and job creation Improved attractiveness of the area for housing <b>Developers and Employers</b> Ability to develop schemes without excessive planning conditions Ability to create employment and attract employees
<b>Investment Objective 2</b> Deliver a financially sustainable scheme which limits long-term maintenance liability	<b>Local Taxpayers</b> Reduced demand on local taxation <b>Local Authority</b> Reduced budgetary demands
<b>Investment Objective 3A</b> Provide safety and security for all users	<b>Users and their families</b> Personal safety and security for users of the route and their families <b>Local authority &amp; Local Enterprise Partnership</b> Maintaining the attractiveness of the area for jobs and housing
<b>Investment Objective 3B</b> Provide safe, direct and attractive routes on the route and onto and off the cycleway at suitable points	<b>Users</b> Easy, safe and direct access to employment and services via the cycleway <b>Local residents and businesses</b> Maintenance of the attractiveness and utility of the area <b>Local authority &amp; Local Enterprise Partnership</b> Locking in the decongestion benefits of transport investment in Maidstone area Improved attractiveness of the area for inward investment and job creation Improved attractiveness of the area for housing

Investment Objectives	Main benefits Criteria by Stakeholder
<b>Investment Objective 4</b> Maintain or improve the local environment around the scheme	<b>Local residents and businesses</b> Maintaining the attractiveness of the area Preserving and improving the natural and built environment <b>Local authority</b> Meeting statutory duties <b>Local Enterprise Partnership</b> Maintaining the attractiveness of the area for investment, jobs and housing

### 3.14 Interdependencies

The Loose Valley Greenway scheme is in essence a 'stand-alone' scheme; however, there is a relationship with other schemes in the Maidstone area such as the Sustainable Access to Maidstone Employment Areas Scheme which will improve cycle provision along the banks of the river Medway.

The overall scheme presented in this Business Case is Kent-wide, providing complementary rights of way improvements which will enable access to employment, education or other facilities, linked to housing and other developments.

The actual schemes funded will vary year to year, chosen using an Intelligent Investment Tool. This ensures that resources are targeted on the most effective schemes in terms of delivery of improved access to employment and education.

## **4 Economic Case**

### **4.1 General KCC Approach to Scheme Economic Case**

#### *4.1.1 General Overview of Approach to Economic Case*

The economic case is one of five strands of evidence required to support the scheme transport business case. Kent County Council's general approach to the economic case has been determined by the need for it to be proportionate to the scale, scope and cost of the proposed scheme and the preparation time available. This approach is fully consistent with Department for Transport advice to scheme promoters (KCC) and adjudicators (SELEP). This advice recurs in the following DfT guidelines:

- Transport Analysis Guidance (WebTAG) (The Proportionate Update Process January 2014);
- Value For Money advice note, December 2013 (sections 1.4, 1.17, 5.3);
- The Transport Business Cases, January 2013 (Sections, 1.4, 2.7, 6.2);
- LEP Assurance Framework, December 2014 (Sections 5.6, 5.7, Annex A); and
- HM Treasury The Green Book, July 2011 (Appraisal and Evaluation in Central Government).

However, none of the above guidance specifies the parameters of what constitutes a proportionate approach to appraisal. Therefore, KCC has applied best judgement to decide how much rigour there should be in the scheme economic case.

#### *4.1.2 Quantitative and Qualitative Economic Appraisal*

In line with the proportionate approach, KCC has prepared partly quantitative and partly qualitative evidence to support the scheme economic case. Generally, for a scheme with relatively large cost (>£5m), the economic appraisal has been substantiated with quantified outcomes. Conversely for a scheme with relatively small cost (<£5m), mainly qualitative evidence has been assembled.

It has also been inappropriate to calculate monetised economic impacts for certain KCC schemes for which the LGF bid is not primarily aimed at achieving transport user benefits. Here, the main scheme objective has been, for example, to enable a more prosperous economy and community by improving public realm, or to save unnecessary future expense by maintaining existing transport assets more effectively.

#### *4.1.3 Components of Economic Case*

The economic case has initially considered all aspects of scheme performance and likely impacts, in line with the TAG criteria outlined in the Appraisal Summary Table (AST), broadly:

- Economic prosperity and efficiency –
  - User travel costs; congestion; reliability; regeneration and wider economy;
- Environment –
  - Noise; air quality; greenhouse gases; landscape; townscape; heritage; biodiversity; water;
- Social well-being –
  - Accidents; physical activity; journey quality; value for non-users; affordable travel; security; access to opportunities and door-to-door options; severance;
- Public accounts –
  - Cost to transport budget; indirect tax; value for money (VfM).

However, many of these aspects are insignificant, or not easily assessed, in the context of the KCC scheme in question. Therefore, the economic case has finally focussed on economic efficiency for transport users, decongestion, reliability, greenhouse gases (carbon), safety, capital cost and VfM, as the core aspects for appraisal.

#### *4.1.4 Quantitative Evidence for Economic Case*

Where the predicted economic outcomes from the scheme have been quantified and monetised, the appraisal method used in the economic case has largely followed the non-modelling approach identified in TAG. This is centred on a 2010, present value (PV), cost and benefit analysis, which weighs up the net economic savings to scheme users, against the net economic costs to public accounts, of the investment. Here, the net impacts are derived by subtracting the with-scheme outcomes from the without-scheme outcomes.

Generally, transport model outputs and economic appraisal software has not been used to assess the schemes, because of the disproportionate costs, resources and data inputs that would be entailed. This has precluded use of TUBA, COBALT, INCA, QUADRO and TfL Urban Design Toolkit.



The time period for the economic appraisal is matched to the context of the scheme, ranging from a 60-year horizon for a longer-term one-off investment, to a 1-year horizon for a shorter-term, staged or packaged investment. Intermediate appraisal terms have been used to suit the likely duration of a particular scheme's impacts.

In the quantified economic approach, manual calculations, or the TAG Marginal External Costs technique, have been used to assess the following scheme impacts: travel time and delay savings for transport users; vehicle kilometre and decongestion savings for society; journey time reliability improvements for users; accident savings for users; health benefits for active mode users; carbon emission savings for society; and the capital cost to public accounts of preparing and constructing the scheme.

Standard TAG economic appraisal summary tables have not largely been produced, owing to the limited scope of the KCC schemes and because neither the required breakdown of benefits, by user-type and journey-purpose, nor segmentation of costs by investment item, have been available. This has ruled out inclusion of Transport Economic Efficiency (TEE) and Public Accounts (PA) tables. However, a summary table for Analysis of Monetised Costs and Benefits (AMCB) has generally been included in the quantified economic case.

A recommended TAG and 'Green Book' method has been followed to convert monetised scheme economic costs and benefits from their year of occurrence to 2010 PV equivalents. In essence, this entailed the following steps:

Converting year-of-estimate capital costs to a 'base cost', by adjusting for real construction cost increase between estimate year and year of cost occurrence;

Converting base cost to 2010 prices, by adjusting for GDP deflation;

Discounting year-on-year costs and benefits to 2010 at 3.5% per annum; and

Adjusting 2010 PV costs and benefits from 'factor cost' to 'market prices', by allowing for indirect taxation (+19% increment).

Final summation of the scheme PV outcomes gives a quantified value for PV Benefit (PVB), PV Cost (PVC), Net Present Value PVB-PVC (NPV) and Benefit to Cost ratio PVB/PVC (BCR).

#### *4.1.5 Qualitative Evidence for Economic Case*

Where the potential economic outcomes from the scheme have been not been quantified and monetised, they have been assessed by aligning with a qualitative scale. This appraisal method for the economic case has largely followed the steps outlined in the DfT 'Value for Money' approach. The qualitative method is considered to be appropriate for schemes of modest cost and scope, which do not merit an elaborate, quantified economic case.

A sequence of six steps has been traced, to attribute a qualitative scale to the scheme's economic impacts, as follows:

- Define an initial BCR (for usually monetised impacts); and
- Work out an adjustment to the BCR (for sometimes monetised impacts);
  - Both against a 5-point scale (poor/low/medium/high/very high);
- Undertake a qualitative assessment (for rarely monetised impacts), against a 7-point scale (slight/moderate/large beneficial, neutral, slight/moderate/large adverse);
- Combine items above, to give initial an VfM, against a 4-point scale (low/medium/high/very high);
- Make a risk assessment, to derive a further adjustment to the initial VfM, using the 7-point scale; and
- Finalise the overall VfM, by adjusting the initial VfM for risk, using the 4-point scale.

Qualitative evidence used to support the economic case is based around applying an order of magnitude to a likely scheme outcome, rather than by calculating a precise, quantified, impact value.

## **4.2 Background**

The objectives set out in the Strategic Case, along with their expression as stakeholder benefits, provide a framework for what the scheme must achieve. These Critical Success Factors (CSFs) in turn provide the basis for the appraisal of the scheme. In line with HM Treasury guidance these CSFs are categorised according to Strategic Fit, Value for Money, Achievability, Affordability and Timescale. These effectively map onto the 5-case model, enabling the scheme and its options to be appraised and compared in order to identify the most effective solutions.

The following subsections describe the scheme options, their advantages and disadvantages and whether they have shown sufficient merit to take forward for more detailed economic appraisal. A summary of the options, mapped against the scheme objectives and CSFs is provided.

Following this, the approach towards more detailed economic appraisal is described, followed by the scheme option appraisal itself.

An Appraisal Summary Table, setting out the key issues relevant to this scheme is provided. Although some aspects of this (including the economic appraisal) have been explored at this stage, other aspects will not be explored in detail until the design and delivery process moves forward.

Whilst this scheme is expected to contribute to the wider economic development of the area, it is focused on increasing the number of trips (especially commuter trips) made between residential locations and local employment and education locations and other services and facilities in the area. As set out in Figure 5 – Scheme Causal Chain, this will provide health benefits for user of the path, reductions in CO<sub>2</sub> emissions and (in conjunction with complementary schemes) will contribute to decongestion benefits. These in turn will enable economic growth in the area, especially in terms of jobs and housing.

### 4.3 Appraisal Assumptions

With devolution of major scheme approval to Local Enterprise Partnerships, it is important that an approach to appraisal is used which gives regard to local priorities (especially in enabling investment, job creation and housing construction). This must be done with due regard to standard practice, which in transport terms means the use of WebTAG guidance. Discussions with the Department for Transport have indicated that a 'proportionate' approach to WebTAG should be used. Kent County Council has held discussions with the South East Local Enterprise Partnership, in the light of Government Guidance<sup>1</sup>, on how the appraisal of devolved small major schemes should be handled. As a result of this the following approach has been used for this Strategic Outline Case:

*All anticipated scheme design and delivery costs (as set out in Section **Error! eference source not found.**) have been calculated as accurately as possible, given the relatively early stage of the design;*

*In line with WebTAG principles, an 'optimism bias' has been added to the costs;*

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<sup>1</sup> Growth Deals: Initial Guidance for Local Enterprise Partnerships. HM Government July 2013

*As the design process progresses, this 'optimism bias' will be replaced by quantified project risk estimates.*

#### **4.4 Options Considered**

The nature, scope and scale of this scheme do not justify the development of multiple options, though tactical design decisions will be made in response to local stakeholder feedback. Consequently, only two options have been considered.

##### ***Option 1.1: Do Nothing***

###### ***Description***

This option will leave the existing pathways along the Loose Valley unchanged. The path is seriously degraded in parts, poorly signed and unsuitable for cyclists and mobility-impaired users at many points.

###### ***Advantages***

There will be no expenditure on the route;

###### ***Disadvantages***

There will be no improvement in the route;

As a result there will be no increase in the access to employment, education or other services;

This will jeopardise the long-term feasibility of the jobs and housing creation planned for the area

The existing paths are difficult and expensive to maintain, jeopardising long-term sustainability

The safety of users is compromised due to maintenance issues

###### ***Conclusion***

The 'do nothing' option is rejected.

***Option: Not carried forward but used as 'baseline' for appraisal***

***Option 1.2: Upgrade to the existing paths and improvements to the quiet roads and links to other highways and rights of way***

***Description***

This option will upgrade the existing paths in the Loose Valley. Along with improving the signage and usability of connections to the route and the quiet roads which parts of the route used, this will deliver a coherent Greenway route along the valley.

***Advantages***

The required route upgrade and links to employment and education sites and other facilities will be achieved;

The route will be sufficiently attractive to deliver the required increases in usage;

The proposal will avoid the need for ongoing repairs to the existing paths;

Landowners and other stakeholders have agreed in principle to the proposal;

***Disadvantages***

Expenditure would be approximately £142,000 (as part of a ROWIP programme of £1.2m)

***Conclusion***

Option 1.2 is the preferred option in terms of delivery of overall goals, management of risks and the long-term maintainability of the scheme.

***Option: Preferred Option***

**Table 3 - Summary of Scoping Options**

Reference to:	Option 1.1	Option 1.2
Description of Option:	Do Nothing	Loose Greenway
<b>Investment Objectives</b>		
<b>1A Increased travel to work (walk/cycle)</b>	x	✓
<b>1B Increased travel to other (walk/cycle)</b>	x	✓
<b>2 Financial sustainability</b>	x	✓
<b>3A Provide safety and security for all users</b>	x	✓

Reference to:	Option 1.1	Option 1.2
Description of Option:	Do Nothing	Loose Greenway
3B Safe, Direct Access	x	✓
4 Environment	x	✓
<b>Critical Success Factors</b>		
<b>Strategic Fit</b>	x	✓
<b>Value for Money</b>	N/A	✓
<b>Potential Achievability</b>	✓	✓
<b>Potential Affordability</b>	✓	✓
<b>Timescale for Implementation</b>	✓	✓
<b>Summary</b>	<b>Discounted</b>	<b>Preferred</b>

## 4.5 Economic Overview

As set out in the Strategic Case, this example scheme (Loose Greenway) represents an important complementary measure in supporting the development of jobs and housing in the Maidstone area. It provides a means for commuters and schoolchildren to choose to walk or cycle on an attractive, direct and safe route.

The example scheme, at £142,000 is too small to justify a fully WebTAG compliant economic appraisal. Even the overall ROWIP programme (£1.2m) is very small and since it is made up of multiple smaller schemes, it would be impossible to undertake a meaningful quantitative appraisal. In view of this, the economic appraisal focuses on:

- The direct benefits of the Loose Greenway example including health economic benefits, greenhouse gas emission savings and journey quality benefits stemming from usage of the route, with specific emphasis on usage involving transfer from car.

- Qualitative appraisal of the wider benefits in the context of the planned developments in the area, major transport schemes in the area and complementary sustainable transport schemes (including those being introduced as part of the Local Sustainable Transport Fund). These benefits include decongestion benefits which are impossible to attribute to individual scheme components.
- Direct scheme construction costs, not taking into account any additional measures such as travel planning or improved connectivity from new developments.

For the purposes of this small scheme, the direct employment benefits (i.e. people employed in constructing the scheme) have not been calculated, though these could be aggregated into the direct employment generated by the LGF programme as a whole.

As detailed in the Causal Chain, the benefits of the scheme and the overall approach to the appraisal of these are as follows:

**Table 4 - Key Appraisal Elements**

Appraisal Item	Direct/ Indirect	Approach to Appraisal
Social - Health benefits from active travel using the path	Direct	Use of World Health Organisation HEAT tool to calculate health economic benefits, based on usage projections
Environmental - Carbon emission savings from transfer from car	Direct	Use of DfT Carbon Tool to calculate CO2 savings from transfer from car, based on usage and modal shift projections
Journey Quality	Direct	Use of recommended WebTAG approach as set out in TAG A5.1
Economy - Journey time reduction on highway network (decongestion)	Indirect	Estimates based on package of schemes, including other sustainable transport schemes (including LSTF)
Economy - Wider economic benefits (GVA, productivity etc.)	Indirect	Not calculated separately – incorporated in above transport economic benefits.

In addition to these, a number of other key benefits have been taken into account and included in the Appraisal Summary Table alongside less detailed commentary on all relevant aspects:

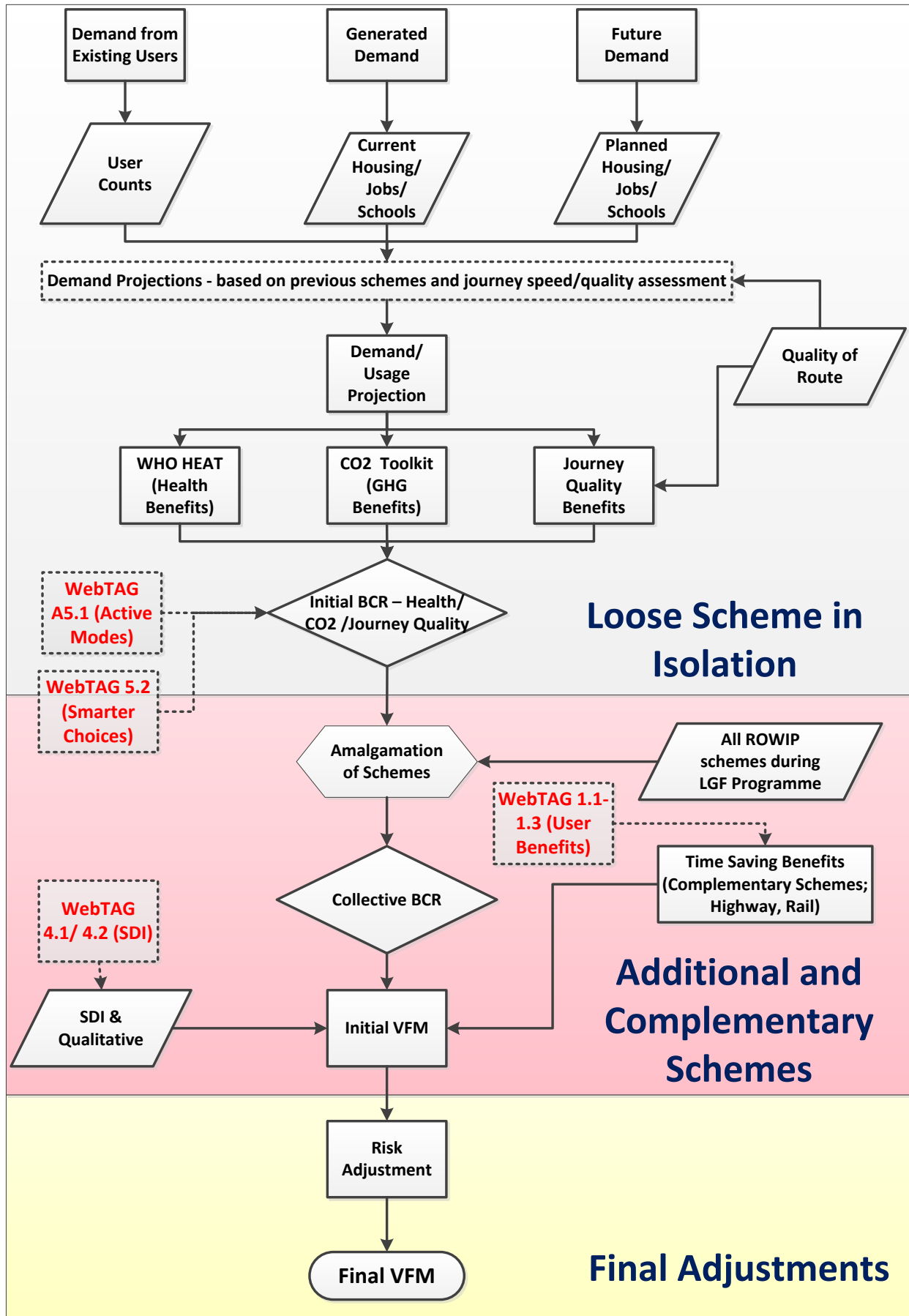


**Table 5 - Additional Appraisal Elements**

<b>Appraisal Item</b>	<b>Direct/ Indirect</b>	<b>Approach to Appraisal</b>
Economy - Regeneration	Indirect	Narrative approach based on enabling development of the area, linked to other initiatives. Includes tourism.
Environmental – Landscape/Townscape	Direct	Narrative approach based on improvement to the local area through design, planning and consultation processes
Social - Inclusion	Direct	Narrative approach based on provision of improved access to employment, training and education without the need for a car
Social – Road Safety	Direct	Narrative approach based on design/audit of safe links into highway and rights of way network
Social – Security of users	Direct	Narrative approach based on sound design, backed by consultation with users, residents and businesses on route
Social - Accessibility	Direct	Narrative approach based on improved access to employment, education and other services for residents

#### **4.5.1 Appraisal Flowchart**

The approach to economic appraisal, using WebTAG principles is shown in Figure 6 below.



**Figure 6 - Appraisal Flowchart**

#### **4.5.2 Appraisal Scenarios**

In view of the small scale of the example scheme (Loose Greenway) the only options which have been appraised are:

- Do Nothing, with the scheme not delivered
- Do Something, with delivery of Option 1.2 (Loose Greenway)

Given that the Intelligent Investment Tool (as used to select the Loose Greenway scheme from 2,500 candidates) will be used to select future LGF-funded ROWIP sub-schemes, the benefits attributed to the £142,000 example scheme will be expanded pro-rata to the £1.2m programme.

### **4.6 Projected Scheme Usage – Demand Projections**

This scheme provides a very significant improvement in the quality and attractiveness of the route. As set out in Figure 6, these improvements will:

- Retain existing users;
- Attract new users travelling between existing housing, employment and education locations. Demand projections are based on experience from elsewhere in Kent, the UK and Internationally where cycle/walk links have been significantly improved;
- Attract further new users as new housing and employment locations are developed.
- Attract additional leisure users and tourists, including those visiting the historic features along the valley. These additional users have not been factored in at this stage.

#### **4.6.1 Existing Demand**

Current cycle mode share in Maidstone (2011 Census) is 1.2%. The traffic model for Maidstone indicates that this equates to 935 trips per day.

Current usage is estimated based on observations since there are no counters on the route. Since there are no counters on the route, it is not possible to estimate accurately the current usage, though observations indicate that commuter/education use is low, with the majority of users being dog-walkers and similar. Winter use of the unsurfaced sections is low due to the muddy surfaces.

#### **4.6.2 Increased Demand Predictions – Case Examples**

Experience from elsewhere in Kent, other parts of the UK and across Europe demonstrates that new and improved active travel infrastructure gives rise to very significant increases in usage. These case examples have been used to help predict the usage of the improved Loose Greenway. Examples include:

##### *Lancaster to Morecambe*

In the mid-1990s the Morecambe to Lancaster off-road cycle route network was surfaced, but it terminated on the north-western bank of the River Lune. Cyclists then had to use busy road bridges to cross the river into Lancaster. Few users did this. The Lune Millennium Bridge was designed to complete the 5km off-road cycle route.

This provides a high quality off-road route with car competitive journey times. Cycle counts showed a large increase in the number of cyclists using the bridge, increasing each year since it opened. 1,000 cyclists are now using the bridge every day.

##### *Bristol and Bath*

The Bristol and Bath path was built in the 1980s on a disused railway between the neighbouring West Country cities. The route was significantly improved under the *Cycling City* programme.

The improved route offers fast, safe and attractive access for commuters, shoppers and schoolchildren from the edge of the cities right into the city centres. Since it runs on an old rail line, it is segregated from traffic.

Initial assessment showed that in the summer of 2011 the path carried 3,000 cycle journeys per day and even more journeys on foot, with usage growing by 10% every year.

##### *Royal Military Canal, Folkestone*

This Kent scheme, though aimed primarily at the leisure market, provides an example of how significant improvements to the quality of a route give rise to significant increases in usage.

The route runs for approximately 10km along the length of the canal from east of Hythe past a number of tourist attractions. It links to a wider network of on-road and off-road routes in the area.

Following the provision of the route, usage rose from almost zero to around 54,000 users per year, with usage increasing year-on-year since opening.

### *Cycling Demonstration Towns*

Six English towns were chosen to be cycling demonstration towns to promote the use of cycling as a means of transport in 2005. Each year for three years the towns received £500,000 to spend on cycling (apart from Aylesbury which received £300,000). In 2009 this was further expanded to cover 12 towns and cities.

Results from the first three years of the Cycling Demonstration Towns programme show that it has been a major success. The original six towns achieved their aim of getting more people cycling, more safely, more often. For the first time in the UK outside London, the national trend of a gradual decline in cycling levels was reversed. A comprehensive evaluation of the investment in Aylesbury, Brighton & Hove, Darlington, Derby, Exeter and Lancaster with Morecambe has shown:

- An average increase in cycling across all six towns of 27%
- The increase is the result of more people starting to cycle, or returning to cycling again, not just the result of cyclists using their bikes for more trips
- Cycling to school has more than doubled where towns invested most in children
- Cycling investment generates town-wide increases in physical activity
- These results were not found in comparable towns
- This growth matches the cycling growth rates in London
- Investment in cycling pays back at least 3:1

The Cycling Demonstration Towns programme included area-wide initiatives (such as travel planning) as well as improvements to specific routes. This has been built into this Medway Cycleway programme, with the key investment in the route being matched by complementary actions, as set out in Figure 5.

### *European Experience*

Sustained investment in cycling facilities has enabled many European cities to achieve significant increases in cycling. An overall analysis of schemes<sup>2</sup> has established that increasing the length of dedicated cycle infrastructure gives rise to a mode shift towards cycling. Each country studied has different values for increased cycle mode share, with those with the most developed infrastructure tending to show higher values. For an

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<sup>2</sup> Factors influencing the cycling level in cities – international comparison and literature overview; Hana Brůhová-Foltýnová, Jan Brůha; Kolin Institute of Technology. 2013

investment akin to that proposed in Maidstone, a shift in overall mode share of around 0.3% is indicated. Since the cycle mode share for Maidstone (2011 Census) is 1.2%, the study indicates that the major investment provided by the Medway Cycleway would lead to a mode share of 1.5% overall. This equates to around 70,000 additional cycle trips per year<sup>3</sup>, without taking account of planned housing and employment growth.

Specific examples in European cities bears out these predictions:

<b>City</b>	<b>Investment</b>	<b>Impact (% Increase Cycle Trips)</b>	<b>Time Period (years)</b>
Hanover	Increased infrastructure	100%	11
Munster	Upgrade to existing infrastructure	50%	11
Munich	Increased infrastructure	225%	22
Seville	Increased infrastructure. Cycle hire	165%	5
Zurich	Opening of one-way streets to 2-way cycling	43%	20
Graz	Increased infrastructure	150%	20
Vienna	Increased infrastructure	300%	20

Though these examples are in much larger cities than the town of Maidstone, the impact of increasing the infrastructure provision (as in Maidstone) is illustrated, with less significant improvements having more modest impacts. Note that these increases in cycling are overall increases rather than increased use of the improved infrastructure alone.

#### **4.6.3 Housing and Employment Growth – Increased Demand**

The Loose Greenway scheme is inter-dependent with the housing and employment growth in the area and with the linked Medway Cycleway. Planned 10 year growth in the area includes 3,880 homes (980 new homes per year) with approximately 3,000 jobs.

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<sup>3</sup> Maidstone traffic model

Calculations undertaken for the related Medway Cycleway, using TRICS database, demonstrated that the proposed development of 3,880 residential units (assuming a figure of 2.4 persons per dwelling) would generate 3386 and 2243 two-way person trips during the AM and PM peaks respectively. To provide a robust assessment, if we assume 1% travel via bike, this would mean an additional 33 new trips during the morning peak.

In reference to trip rates for employment, whilst this is more difficult to assess, redevelopment sites such as Maidstone East, means that if we follow the same methodology as above and assume a cycle rate of 1%, we can expect reasonably expect 30 new trips along the Medway cycle corridor.

Although inter-related, the Loose Greenway scheme will serve slightly different markets, with a lower overall usage compared with the Medway Cycleway scheme. Analysis of these factors indicated that around 30 new trips per day will use the route, excluding leisure users.

Previous ROWIP schemes have been successfully delivered by Kent County Council. Usage has in each case met or exceeded expectations, as shown by the table below. This indicates that the selection of schemes (using the Intelligent Investment Tool) is sound.

**Table 6 - Usage of Previous ROWIP schemes**

<b>ROWIP Scheme</b>	<b>Year</b>	<b>Predicted Usage/yr</b>	<b>Annual count</b>	<b>Count since creation</b>	<b>Distance</b>
Pilgrims Cycle trail	2013	5,000*	1 <sup>st</sup> year = 7829	7829*	1.4km
Royal Military Canal	2011	30,000	55282	148657 data from 04.11 – 02.14	1.6km
Tonbridge to Penshurst	2008	50,000	60652	292,187 data from 04.08-01.13	9km

\*Rural location. Usage expected to increase gradually over a longer period.



The cost of schemes will be proportionate to the size of community or potential use. In the case of the Loose Greenway this would be directly accessible to the populations of Maidstone Wards South and Loose, totalling 11,660. It is likely also to be used by the urban populations of Maidstone totalling 119,470 residents to access schools or employment in the South Maidstone area. The Intelligent Investment Tool is geared to ensuring that schemes are effective and proportionate in the context of the community served. Its past performance has been good in this regard and its use in the future in developing the ongoing ROWIP programme will be similarly good, ensuring that the most effective schemes are delivered.

#### **4.6.4 Outcome Benchmarking**

Usage of the Loose Valley example project has been predicted based on previous experience and analysis of the local market in the context of the use of the Intelligent Investment Tool. These usage projections have been used to undertake the economic analysis detailed below.

In order to justify the extrapolation of these usage and economic calculations, a 'benchmarking' approach has been used. This encompasses:

- Usage benchmarking based on the example schemes set out in Section 4.6.2
- Local usage benchmarking based on previous ROWIP projects, as set out in Table 6.
- Outcome benchmarking using research undertaken on similar schemes elsewhere, helping to justify the benefit/cost ratios and value for money calculated for the Loose Valley scheme and extrapolated to the ROWIP programme as a whole. This has been undertaken using a number of studies summarised as follows<sup>4</sup>:

**Table 7 - Compendium of BCRs for UK Walking and Cycling Infrastructure Projects**

Study	Study focus/location	Benefit to cost?	Comment
DfT, 2005	London	24.5:1	Canal towpath assessed in terms of levels of walking and cycling commuter use

<sup>4</sup> Value for Money: An Economic Assessment of Investment in Walking and Cycling. Davis 2010, for Department of Health, NHS South West and Government Office for the South-West

Study	Study focus/location	Benefit to cost?	Comment
SQW Consulting, 2008	UK	Almost 10:1.	Estimated impacts of five cycling infrastructure projects
Cycling England	England	2.59:1	Increases in cycling associated with Cycling Demonstration Towns - mortality benefits only.
Sustrans	Bootle	29.3:1	Resurfacing, some new construction, road marking, signing and lighting
Sustrans	Hartlepool	32.5:1	Construction of toucan crossing close to primary and secondary school, with some general infrastructure improvements in immediate vicinity.
Sustrans	Newhaven	14.9:1	New shared-use path in an existing grassed verge adjacent to, and set back from, the busy A259 was constructed
	<b>Median</b>	<b>19:1</b>	

This indicates that a BCR of around 19:1 would be achievable for schemes similar to those to be undertaken under the Kent ROWIP programme, including the Loose Valley example scheme.

#### **4.6.5 Overall Demand Prediction**

#### **4.6.6 Cycling and Walking**

The route as it stands is not really suitable for cycling. The improvements planned will ensure that some key sections (especially those linking housing with schools) will be suitable for safe, convenient cycle access. Based on the above calculations, the projected usage of the facility is 60,000 users per annum, including additional users from housing and employment growth in the area.

Over time, the additional housing and employment growth in the area will generate additional trips, increasing the benefits further.

### **4.7 Economic Benefit Calculations**

The approach set out in Table 4 and Figure 6 detail the key components of the appraisal of the scheme in isolation:

- Health benefits from active travel, based on reduced mortality benefits and calculated using the World Health Organisation HEAT tool;
- Greenhouse gas emission benefits arising from transfer of trips from car to walk/cycle, calculated using the DfT Carbon Toolkit
- Journey quality benefits, stemming from the improvement of the route and the benefit derived by users from this. This is calculated as set out in WebTAG Unit A5.1.

These benefits are in turn based on the usage of the scheme as defined in Section 4.6.

The economic contribution of the scheme, in terms of journey time savings stemming from reduced congestion, is delivered in conjunction with the complementary LSTF schemes and alongside the capacity improvements stemming from the Maidstone Gyratory project. In view of this, the time-saving benefits are calculated at this 'package' level.

Additional benefits, as set out in Table 5, are brought in after the calculation of a BCR, in order to provide an initial assessment of overall Value for Money. This is adjusted for risk to provide a final Value for Money category in the Value for Money Statement (Section 4.9)

**Table 8 - Summary of Predicted Economic Benefits**

Reference to:	Option 1.1	Option 1.2	Extension to ROWIP
Description of Option:	Do Nothing	Loose Greenway	
<i>Inherent benefits (Scheme in Isolation) over 20 years (£m)</i>			
Health Benefits (HEAT)	0	2.494	14.96
GHG Benefits (Carbon Toolkit)	0	0.134	0.804
Journey Quality Benefits	0	1.045	6.27
Overall Scheme benefit	0	3.673	22.034
<i>Net 'public accounts' impacts (£m)</i>			
Capital cost of construction	0	0.155	1.2

Reference to:	Option 1.1	Option 1.2	Extension to
Description of Option:	Do Nothing	Loose Greenway	ROWIP
<b><i>Isolated scheme impacts (Health, CO2 &amp; Quality) (£m) - Discounted</i></b>			
<b>User Present Value Benefit (PVB)</b>	0	4.371	26.23
<b>Capital Present Value Cost (PVC)</b>	0	0.156	0.94
<b>Scheme Net Present Value (NPV) = PVB - PVC</b>	0	4.215	25.29
<b>Scheme benefit to cost ratio (BCR)</b>	0	28.1	28.1*

\*Estimate based on programme meeting benefits of example scheme

## 4.8 Appraisal Summary Table

The Appraisal Summary Table in Table 9 has been completed to take account of the qualitative benefits of the scheme (see Table 5) as well as those which have been monetised in Table 8.

**Table 9 - Appraisal Summary Table (Assuming Option 1.1, Extrapolated to Full ROWIP Implementation)**

Impacts		Summary of key impacts	Assessment			
			Quantitative		Qualitative	Monetary £m(NPV)
Economy	Business users & transport providers (Combined with Commuting and Other users)	Journey time improvements due to transfer from car to walk/cycle  In conjunction with Gyratory & LSTF Schemes	Not quantified		Slight beneficial	No
	Reliability impact on Business users	Improved journey time reliability	Not quantified, though comparison with existing dual carriageway indicates string positive impact		Slight beneficial	No
	Regeneration	Support for sustainable housing growth, job creation and inward investment in the area	Growth projections included in appraisal		Moderate beneficial	No
Environmental	Noise	Not calculated at this stage	Some improvement due to transfer from car to walk/cycle		Slight beneficial	No
	Air Quality					No
	Greenhouse gases	Reduction in carbon emissions (calculated using DfT Carbon Toolkit)	Change in non-traded carbon over 20y (CO2e). Annual tonnes (1000s)	1.35	Moderate beneficial	0.94
	Landscape	Work to date (Including <i>Valley of Visions</i> ) indicates that these elements will be positive or neutral. Ongoing design process and consultation will enhance further	Not quantified		Moderate beneficial	No
	Townscape					
	Historic Environment					
	Biodiversity					
	Water Environment					
Social	Commuting and Other users (Combined with Business Users and transport Providers)	Journey time improvements due to transfer from car to walk/cycle  In conjunction with Gyratory & LSTF Schemes	Not quantified		Slight beneficial	No
	Reliability impact on Commuting and Other users	Improved journey time reliability	Not quantified, though comparison with existing dual carriageway indicates string positive impact		Slight beneficial	No
	Physical activity	Mortality Benefits calculated using WHO HEAT tool, based on projected usage	Mortality Change/year	0.34	Moderate beneficial	11.59
		Additional health benefits (reduced absenteeism, increased productivity)	Not quantified, though evidence indicates significant impact		Moderate beneficial	No
	Journey quality	Journey quality improved through improved/new facility	Value of Journey Quality Benefits	7.86m	Moderate beneficial	7.86

Impacts		Summary of key impacts	Assessment		
			Quantitative	Qualitative	Monetary £m(NPV)
			(WebTAG Unit A5.1)		
	Accidents	Slight reduction in overall accidents due to reduction in car trips. Slight reduction in cycle accidents due to transfer of on-road trips to off-road	Not quantified as effects will be too small to be significant	Assumed slight beneficial	No
	Security	Personal security will be a design factor in the scheme. Overall security will improve due to increase in usage	Not quantified as effects will be small	Assumed slight beneficial	No
	Access to services	The availability of an off-road route well connected with housing, employment, education and Maidstone Town Centre will improve accessibility, especially for low-income groups. Effects already calculated as part of usage, though SDI benefits will increase these	Not quantified beyond usage calculations, though higher positive impact on young and low-income will increase overall benefit	Moderate beneficial	No
	Affordability	Provision of LGF funds and local contribution	Local funding committed	Neutral	
	Severance	Severance will be reduced, especially in the context of natural severance (River Medway) the availability of the path to avoid town centre roads and the crossing under M20	Not quantified, though clearly a positive impact	Moderate overall benefit – significant in some cases	No
	Option and non-use values	The presence of the pathway will be valued by household members near the route, irrespective of whether they use it	Not quantified but anticipated that there will be a moderate benefit	Moderate beneficial	
Public Accounts	Cost to Broad Transport Budget	Capital funds from LGF and Section 106 User benefits	1.17 24.26	Significantly beneficial	1.17 24.26
	Indirect Tax Revenues	Slight reduction in fuel tax due to reduction in car trips	Not quantified	Slight cost	No

## **4.9 Value for Money Statement (Applied to Full £1.2m ROWIP Scheme)**

This Value for Money Statement has been prepared on the assumption that future schemes will deliver similar benefits as those calculated for the example scheme (Loose Greenway). Since the same process and criteria (Intelligent Investment Tool) will be used to select future schemes to be funded as were used to select the Loose Greenway, this assumption is considered reasonable.

### **4.9.1 Initial Vfm Category**

The VFM Category, taking account only of the quantified benefits reduced mortality, CO<sub>2</sub> emission reductions and journey quality improvements (with a BCR of over 20) is 'very high'. This BCR Score is consistent with benchmark schemes cited in Section 4.6.

### **4.9.2 Additional Benefits**

There are a number of additional benefits which have not been quantified but which contribute significantly to the value for money of the scheme:

- Decongestion and journey time improvement benefits achieved through a transfer of trips from car to walk/cycle. These cannot be differentiated from the associated highway schemes (e.g. Maidstone Gyratory in relation to the Loose Greenway example). The example scheme will help 'lock-in' the benefits of the highway investments, augmenting their long-term success in providing additional capacity.
- Housing and employment development benefits in terms of encouraging people to move to Maidstone, making use of the sustainable travel facilities to travel car-free to employment and education directly or (via the rail network) further afield, including London.
- Regeneration and social benefits gained by providing car-free access to employment, education, training and other facilities in deprived areas served by the routes (part of the Intelligent Investment Tool).
- Noise and air quality benefits gained through the transfer of trips from car to walk/cycle.
- Environmental benefits in terms of active management of the routes, encouraging wildlife diversity.



- Tourism benefits in terms of improvements to the rights of way network as a whole.
- Safety benefits gained through the transfer of cycle and walk trips from on-road to off-road
- Security benefits gained through the increased usage of the routes

#### **4.9.3 Present Value of Benefits (Initial VfM Category)**

The anticipated net present value of the delivery of the ROWIP improvements, based on calculations undertaken using the Loose Greenway example, provide a present value of £24.26m, based on a 20 year appraisal and discounted to 2010 values.

This represents extremely high value for money, especially when combined with the additional benefits above.

#### **4.9.4 Risk Adjustment and Final VfM Category**

The risks inherent in this project are low. In view of this, the Final VfM Category remains 'very high'.

#### **4.9.5 Summary of Benefits and Costs**

The immediate benefit from the scheme (through sub-schemes such as the Loose Greenway) will be the provision of attractive, direct routes which will facilitate a large increase in cycle and walk trips between residential areas and employment and education facilities.

In combination with the highway schemes (e.g. the Maidstone Gyratory), other sustainable transport schemes (e.g. River Medway Cycleway) and the complementary LSTF scheme, the ROWIP schemes will help 'lock in' the benefits of transport investment and will facilitate the sustainable growth of housing and employment set out in the SELP Strategic Economic Plan and the Local Plans of Kent Borough and District Councils.

This in turn will encourage inward investment and enable commercial and employment growth in the area.

The primary financial benefits which have been used to calculate the value of the scheme are:

- The health benefits of cycling and walking in terms of reduced mortality
- A reduction in greenhouse gas emissions from the transfer of car trips to walk/cycle

- Journey quality benefits for users of the route
- Decongestion/journey time saving benefits, delivered in combination with linked highway and LSTF schemes

In addition, there are a number of additional benefits which have not been monetised, the most important of which are:

**Economy – Regeneration**

*The scheme will support the sustainable development of employment, retail and housing, including on brownfield and contaminated lands in the area*

**Environmental – Landscape/Townscape**

*The waterside environment and access to the historic assets on the route will be enhanced and their enjoyment will be improved through the better access*

**Environmental – Flooding & Flood Resilience**

*The resilience of the route in terms of damage caused by local flooding will be significantly improved*

**Social – Inclusion**

*The availability of a safe, direct and attractive route for cyclists and walkers will provide significantly improved access for people of low income, the young and the elderly*

**Social – Road Safety**

*The improved an off-road route will enable safe, attractive links to residential, employment, education and the town centre*

**Social – Security of users**

*The route will be designed with personal security in mind and the increased usage will enhance this further*

**Social – Accessibility**

*The availability of a safe, direct and attractive route for cyclists and walkers will provide significantly improved access for people of low income, the young and the elderly*

The main costs of the scheme are:

- Scheme construction costs totalling £1.2m (2014 prices). The example scheme involves construction costs of £142,000.

#### **4.9.6 Key Risks, Sensitivities and Uncertainties**

The following key risks have been identified and mitigation approaches have been defined to address these:

- Landowners reject requests for access or rights of way or unplanned land purchase is required
- Stakeholders reject scheme as unsuitable or inappropriate
- Highway design issues prove costly

- Significant habitat or other wildlife issues arise
- Key stakeholders (e.g. LEP or DfT) insist on additional quantitative appraisal
- Related highway scheme designs affect scheme or scheme affects these schemes
- Unknown levels of demand
- Benefits achieved do not match those predicted in the example used in the Business Case
- Anticipated developer contributions are not actually delivered

## **5 Commercial Case**

### **5.1 Commercial Issues**

5.1.1 The commercial case provides evidence on the commercial viability of the scheme and the procurement strategy that will be used. It sets out the financial implication of the proposed procurement strategy and presents evidence on risk allocation and transfer, contract timetables and implementation timescale as well as details of the capability and skills of the team delivering the project.

5.1.2 The outcomes which the procurement strategy must deliver are to:

- Achieve cost certainty, or certainty that the scheme can be delivered within the available funding constraints;
- Minimise further preparation costs with respect to scheme design by ensuring best value, and appropriate quality;
- Obtain contractor experience and input to the construction programme to ensure the implementation programme is robust and achievable; and
- Obtain contractor input to risk management and appraisals, including mitigation measures, to capitalise at an early stage on opportunities to reduce construction risk and improve out-turn certainty thereby reducing risks to a level that is As Low As Reasonably Practicable.

### **5.2 Scheme Procurement Strategy**

#### *Procurement Options*

KCC have identified two procurement options for the delivery of their LEP funded schemes. The alternative options are:

#### Full OJEU tender

This option is required for schemes with an estimated value of over £4,322,012.

KCC will then need to opt for an 'open' tender, where anyone may submit a tender, or a 'restricted' tender, where a Pre-Qualification is used to whittle down the open market to a pre-determined number of tenderers. This process takes approximately one month and the first part is a 47 day minimum period for KCC to publish a contract notice on the OJEU website.

The minimum tender period is 6 weeks but could be longer for larger schemes. Once the tenders are received they must be assessed and a preferred supplier identified. There is a mandatory 10 day 'standstill' period, during which unsuccessful tenderers may challenge the intention to award to the preferred contractor.

Delivery through existing Amey Highways Term Maintenance Contract (HTMC)

This option is strictly not procurement as the HTMC is an existing contract. The HTMC is based on a Schedule of Rates agreed at the inception of the contract. The price for each individual scheme is determined by identifying the quantities of each required item into a Bill of Quantities. Amey may price 'star' items if no rate already exists for the required item. If the scope of a specific scheme is different from the item coverage within the HTMC contract a new rate can be negotiated.

*Preferred Procurement Option*

The preferred procurement route for the Loose Valley Greenway and for other schemes within the programme is through existing Amey Highways Term Maintenance Contract (HTMC).

This option has been selected as the value of the scheme is less than the OJEU scheme value threshold.

### **5.3 Potential for Risk Transfer**

Although many of the design risks can only be resolved through rigorous design and review processes, once the design options are clear and the scope of land acquisition, planning requirements, environmental requirements are fully identified; the primary risks will be related to construction. There is potential for transferring these risks through the construction procurement process. This will be explored fully as the design and procurement process progresses.

## 6 Financial Case

### 6.1 Introduction

This chapter presents The Financial Case for the Kent Sustainable Access to Employment and Education scheme. It concentrates on the affordability of the proposal, its funding arrangements and technical accounting issues. The total outturn costs and expenditure profile are presented, along with an assessment of the impact of the proposed deal on the Department's budgets and accounts.

Capital costs have been calculated for the do-something scheme situation, only, because there are not expected to be any alternative construction costs that would be incurred in the do-nothing only and not in the do-something.

Only the costs which will be incurred subsequent to a successful funding bid have been considered. 'Sunk' costs, which represent expenditure incurred prior to funding approval and which cannot be retrieved, have not been included.

### 6.2 Capital Cost Component at 2014 Prices

The capital required to fund the project is £1.2m for the period 2015-2021. However, only spend for 2015/2016 is known in detail at this stage. Table 8 indicates the scheme capital cost as estimated in 2014 prices. The amount requested from the LEP is £0.9m.

### 6.3 Sources of Funding

The capital required to fund the project is £1.2m for the period 2015-2021. However, only spend for 2015/2016 is known in detail at this stage. Table 8 shows the various items of scheme capital cost as estimated in 2014 prices. The cost estimate has been developed by KCC officers based upon experience of other similar schemes.

**Table 10 – Components of Investment Cost (15/16)**

<b>Cost Category</b>	<b>£</b>
Loose Valley Greenway Scheme	
- Design & Fees	45,847.79
- Construction	130,489.87
<b>Total Base Cost 2014 prices</b>	<b>176,337.66</b>

## 6.4 Inflation

General inflation is forecast to be 1% between 2014 and 2015, while construction costs are forecast to increase by 4.1% for the same period<sup>5</sup>. Therefore the base investment costs, including real cost increases have been calculated by:

- **In 2015 - £176,338 x,010 x (1.041/1.010)^1 = £181,750.**

## 6.5 Risk Budget

A 10% risk contingency has been applied in line with best practice for work of this nature. The projects likely risk profile will be considered further as part of the Quantified Risk Assessment (QRA) as the design elements progress further.

## 6.6 Optimism Bias

Optimism Bias adjustments are designed to deal with the 'systematic tendency of project appraisers to be overly optimistic' with regard to a project's 'costs, benefits and duration'. To reflect the current status of scheme designs and costs, an Optimism Bias uplift of 10% has been applied to scheme costs as part of the Economic Case, therefore ensuring that the economic appraisal is robust.

Optimism Bias adjustments are not intended for use in estimating actual scheme outturn costs for funding requests and are therefore not included in the costs.

## 6.7 Final Scheme Costs

Table 9 below shows the final scheme costs for the 2015/16 funding bid, including risk and inflation but excluding optimism bias and indirect taxation.

**Table 11: Summary of Final Scheme Costs (2014 prices)**

Cost Type	Cost (£)
Scheme Cost	176,338
Inflation	5,412
Risk Allowance	18,175
<b>Total</b>	<b>200,000</b>

---

<sup>5</sup> Sweett Tender price Update United Kingdom Q2 2014

## 6.8 Spend Profile

The total sum requested from the Local Growth Fund is £0.9m, with other contributions (from developer contributions) being just over £0.3m. The details are provided in Table 10 below:

**Table 12 - Sources of Finance**

Funding Source	2014/15 £000	2015/16 £000	2016/17 £000	2017/18 £000	2018/19 £000	2019/20 £000	2020/21 £000
Local Growth Fund (SELEP)	0	150	150	150	150	150	150
<b>Local Contribution Total (leverage) – Local Authority</b>	<b>0</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>
<b>Other Funding</b> (ensure naming every institution; insert as many rows as required) – Private Sector	<b>0</b>						
<b>TOTAL FUNDING</b>	<b>0</b>	<b>200</b>	<b>200</b>	<b>200</b>	<b>200</b>	<b>200</b>	<b>200</b>

## 6.9 Whole Life Costs

It is likely that there will be on-going revenue implications for future maintenance (as is the case with most schemes), which will be added to the general highway asset and funded as required. To date these cost implications have not been quantified.

## 6.10 Funding Assumptions

The total project cost is estimated at £1.2 million which will be funded from the LEP contribution of £0.9m which has provisionally been granted dependent on the business case and a contribution of £0.3m from the local authority.

## 6.11 Overall Affordability

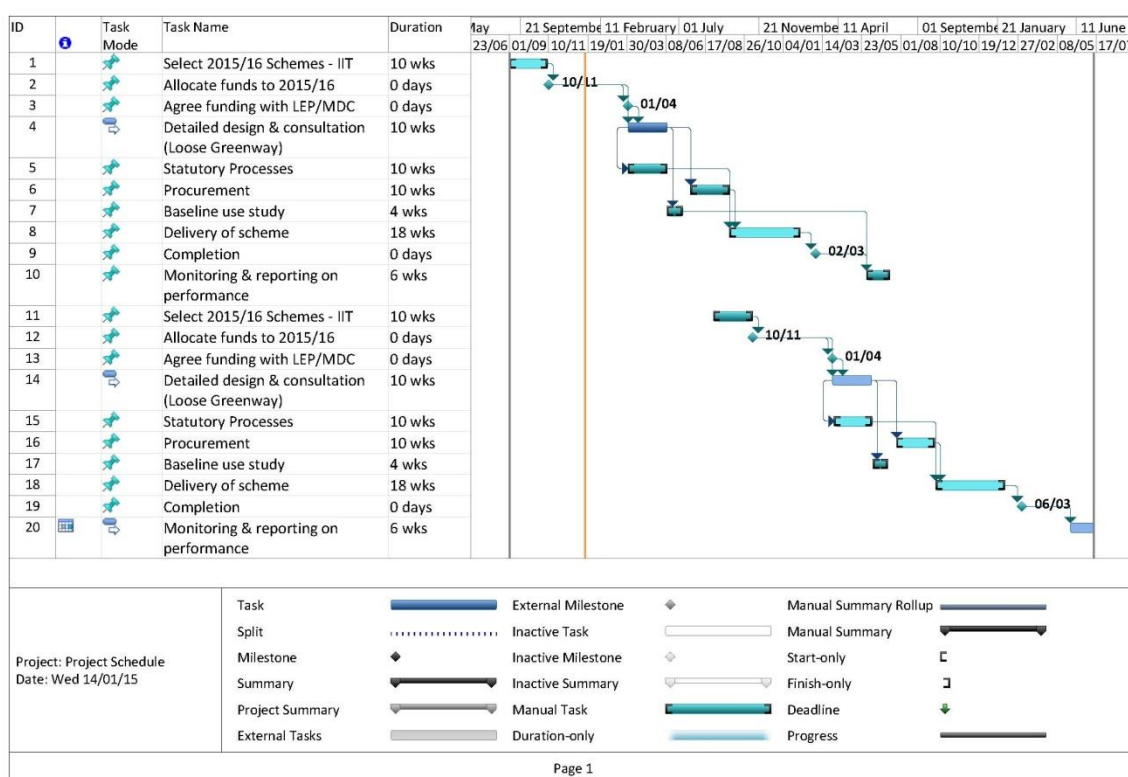
The scheme design is well advanced and the costs are reasonably well defined. In view of this, with the existing committed LGF and Section 106 funds are considered adequate for delivery of the scheme.



## 7 Management Case

### 7.1 Project Plan

The project timetable will run on an annual cycle, with selection of schemes for the following year being undertaken using the Intelligent Investment Tool in September. The programme for delivery of the Loose Greenway in 2015/16 is shown in the Project Plan (Figure 7), together with an indicative programme for 2016/17. This process will continue on an annual cycle throughout the ROWIP plan period (to 2021).



**Figure 7 - Project Plan**

### 7.2 Project management arrangements

Although not fully defined at this stage, the scheme is likely to be project managed in house by PRINCE2 trained and experienced Council staff using well-established governance structure that has successfully delivered large projects across Kent.

### **7.3 Project Governance, Roles and Responsibilities**

KCC have set up a clear and robust structure to provide accountability and an effectual decision making process for the management of the LEP funded schemes. Each scheme will have a designated project manager who will be an appropriately trained and experienced member of KCC staff.

Figure 8 overleaf provides an outline of the overall governance structure implemented to manage the delivery of each scheme.

A detailed breakdown of the meetings (along with the attendees, scope and output of each) which make up the established governance process is set out below.

#### *Project Steering Group (PSG) Meetings*

PSG meetings are held fortnightly to discuss individual progress on each scheme and are chaired by KCC Project Managers (PMs). Attendees include representatives from each stage of the LEP scheme (i.e. KCC Bid Team, KCC sponsor, KCC PMs, Amey design team and construction manager). Progress is discussed in technical detail raising any issues or concerns for all to action. A progress report, minutes of meeting and an update on programme dates are provided ahead of the Programme Board (PB) meeting for collation and production of the Highlight Report.

#### *Highlight Report*

The Progress Reports sent by the KCC PMs comprise of the following updates; general progress, project finances, issues, risks and governance meeting dates. The Highlight Report identifies any areas of concern or where decisions are required by the PB meeting or higher to the KCC LEP Programme Manager. An agreed version of the Highlight Report is issued to the PB meeting attendees during the meeting.

**Figure 8 – KCC Project Governance Structure**

KCC LEP Meeting Governance Diagram										
Bid	Design	Construction	High level Agenda	Frequency	Attendees	Format	Scope	Agenda Items	Key Deliverables/Feedback	Templates
Sponsoring Group			Bid Design Construction	Monthly - Can be called in emergency if required	Chair: TR BC/JB/MG Supported by IPM attendees as required	Face to face meeting, rotating venue	To discuss programme (i.e. high level progress/preview next steps and discuss and resolve issues.	LEP programme (high level) progress to date Programme Financial reporting Next steps Issues/Risk/Change Actions	Minutes of Meeting Action/Decision Log Output distributed to MG	Agenda Minutes Decision list
Escalation Report			Decisions Needed	Monthly	MG/JW	Report	To record outstanding actions/issues that require a decision made by the board		Action list ready for the Steering Group	Action List
Programme Board Meeting			Bid Design Construction	Monthly	Chair: MG MG/FQ/KCC Promoters/KCC PMs/AQ or RC/Amey TE's SW&JC/JW	Face to face meeting, rotating venue	To discuss progress/preview next steps and discuss and resolve issues	LEP programme progress to date Project financial reporting Next steps Issues/Risk/Change Actions	Minutes of Meeting Action List Output distributed to all attendees	Agenda Minutes
Highlight Report			Identify key points for Programme Meeting	Monthly	JW/MG	Face to face meeting/report	JW to collate and streamline all reports highlighting areas of interest for the programme meeting. To be fed back to MG by report/meeting		Highlight report for MG to use for Programme Meeting. Highlight report shared with PR attendees.	Highlight Report
Steering Group Meeting			Progress Update	Monthly/Fortnightly as required	Chair: KCC PMs All input staff - KCC Bidding/KCC Promoters/KCC PMs/Amey Design/TMC/JW	Face to face meeting	Individual meetings per project (including each stage of the LEP process to discuss progress in detail).	LEP project progress to date/MS Programme Project financial reporting Issues/Risk/Change Actions	MS Programme Update Progress update in template for each project	Progress Report

**List of Initials:**

BC	Barbara Cooper
JB	John Burr
TR	Tim Read
MG	Mary Gillett
FQ	Fayyaz Qadir
AQ	Andrew Quilter
CM	Chris Morris
RC	Richard Cowling
SW	Steve Whittaker
IC	Ian Cook
JW	Joanne Whittaker

#### *Programme Board (PB) Meeting*

The PB meeting is held monthly and is chaired by the KCC LEP Programme Manager. Attendees include representatives from all three stages of the schemes (i.e. KCC LEP Management, KCC LEP Bidding, KCC Sponsors, KCC PMs, Amey Account Manager, Amey Technical Advisors, Amey Construction representatives). This meeting discusses project progress to date, drilling into detail if there is an issue or action (as identified in the PSG meeting), financial progress, next steps and actions. Outputs of this meeting are the Highlight Report and the minutes of meeting.

#### *Escalation Report*

A list of actions and decisions that the PB meeting was unable to resolve is prepared ready for the Sponsoring Group (SG) meeting to discuss and ultimately resolve.

#### *Sponsoring Group (SG) Meeting*

The SG is held monthly and will be chaired by Tim Read (KCC Head of Transportation). Attendees are Barbara Cooper (Corporate Director), John Burr (Director of Highways, Transportation and Waste), Tim Read and Mary Gillett (KCC Major Projects Planning Manager). This meeting discusses high-level programme progress to date, financial progress, next steps and closes out any actions from the escalation report. Output is sent to Mary Gillett for distribution. Technical advisors are invited if necessary to expand upon an issue. All actions from the start of this meeting cycle are to be closed out by the SG when they meet (i.e. no actions roll over to subsequent meetings).

## **7.4 Suitability and Availability of Resources**

The scheme is intended to be delivered using a collaborative approach between KCC staff and their appointed support organisation Amey. KCC have identified appropriately trained and experienced staff that will be the responsible for the delivery of the scheme. The identified staff fulfilling the Project Sponsor role for the scheme has been ring-fenced to support the scheme throughout its duration and will have more junior staff available to support them.

Furthermore, the Project Sponsor and Project Manager will utilise appropriate staff from two existing contracts with Amey. Design and technical services support will be provided through the Technical and Environmental Services Contract (TESC) which is active until at least 2018. Amey have a dedicated multi-discipline team located in Maidstone to support the LGF funded schemes. KCC will also utilise dedicated Amey resource through the existing HTMC contract to undertake the construction of the scheme and also to provide early contractor involvement (ECI), where appropriate, to the design process to ensure best value.

## **7.5 Evidence of Previously Successful Scheme Management Strategy**

KCC have a successful track record of delivering major transport schemes within the county. The most recent of which were the East Kent Access Phase 2 (EKA2) and Sittingbourne Northern Relief Road schemes (SNRR).

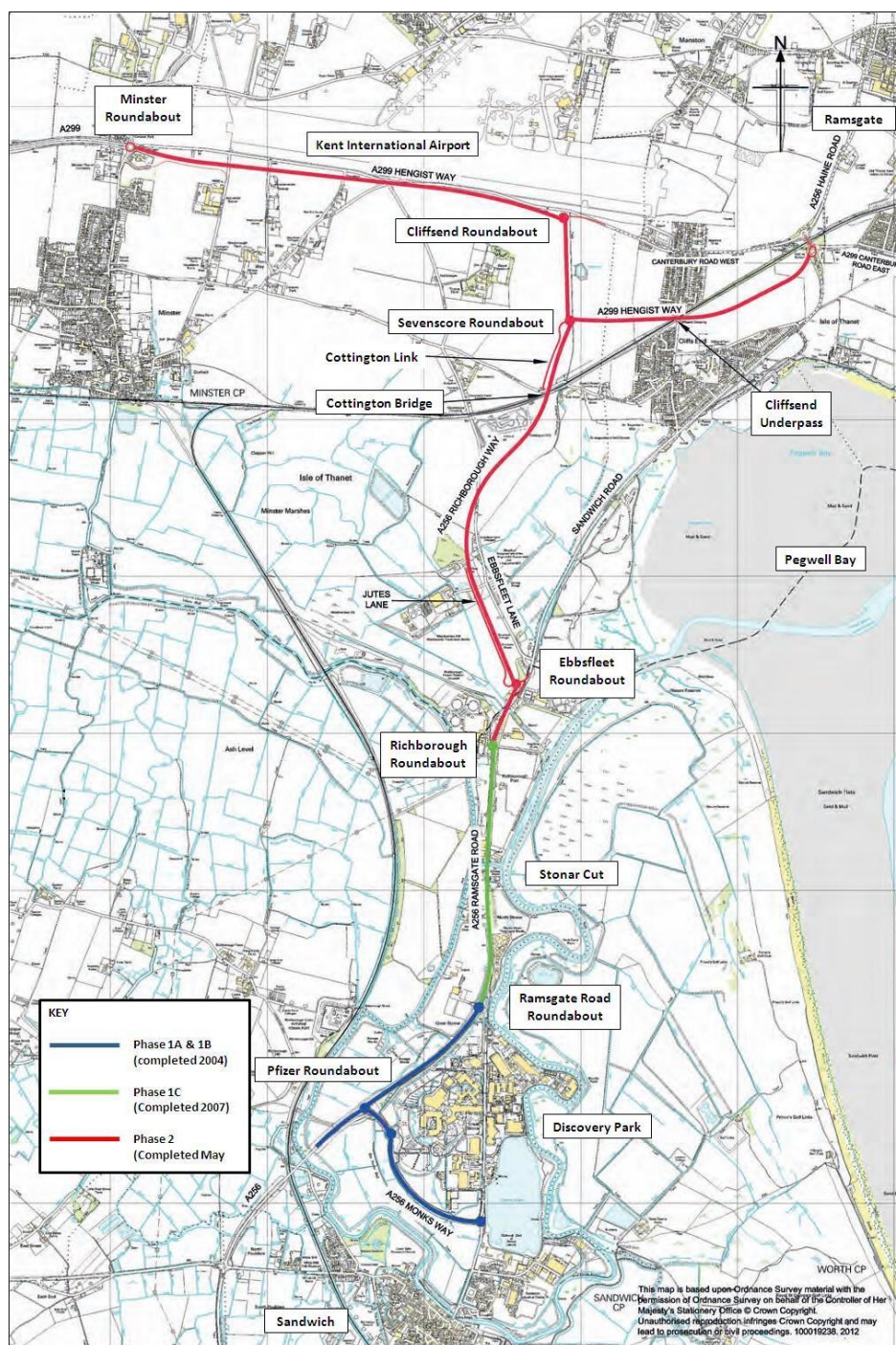
The EKA2 scheme, completed in May 2012, was designed to support economic development, job creation and social regeneration, improving access with high quality connections between the urban centres, transport hubs and development sites in East Kent. The overall objectives of the scheme were to unlock the development potential of the area, attract inward investment and maximise job opportunities for local people. The extent of the scheme is shown in Figure 9 overleaf.

The scheme was successfully delivered within budget and ahead of programme through the adoption of a robust management approach similar to that set out above to deliver the ROWIP scheme. The total value of the scheme was £87.0m of which £81.25m was funded by Central Government.

The intended scheme outcomes are currently being monitored but the intended benefits of the scheme are anticipated to be realised.



**Figure 9 – EKA2 Scheme Layout**



The SNRR scheme, completed in December 2011, was designed to remove the severance caused by Milton Creek and give direct access to the A249 trunk road for existing and new development areas, thereby relieving Sittingbourne town centre.

The delivered scheme is shown in Figure 10 below:

[illegible]

Both the EKA2 and SNRR schemes have since been awarded regional Institute of Civil Engineers (ICE) Excellence Awards.

### 7.6.1 Risk Management Strategy

Issued: March 2015

An example scheme risk register is shown in Figure 11 below:

Risk Register													
Project Title: Example 1				H		Risk				H		Risk	
Project Manager: Mr Smith				H		Medium				H		Medium	
Date of Last Review: 24/02/2016				L		Low				L		Low	
Risk Number		Risk Description		Date Logged		Notified Respect		Notified Priority		Notes of Impact (Commercial/Programme/RIS)		Action to be taken (Mitigation)	
By Whom		By Whom		When Ideal Respect		When Ideal Priority		Progress		Residual Cost Allowance in Project Estimate		Risk exceeded this review?	
01		Example: Placeholder for a scenario for a not defined R. Deferred		02/02/2016		L		L		Example: Delay to project end date as a contract deconstruction.		Example: Ensure that it is in project programme with relevant team that provides.	
By Whom		By Whom		When Ideal Respect		When Ideal Priority		Progress		Residual Cost Allowance in Project Estimate		Risk exceeded this review?	
By Whom		By Whom		When Ideal Respect		When Ideal Priority		Progress		Residual Cost Allowance in Project Estimate		Risk exceeded this review?	

A signed letter by KCC's Section 151 officer providing appropriate project assurances is contained as **Appendix A**.

Tracking of the scheme benefits will be a key element in understanding the success of a specific intervention. The realisation of benefits is intrinsically linked to the Monitoring and Evaluation plan.

The scheme objectives set out in Section 3.11 have been used to develop the desired outputs and outcomes for the scheme. The desired outputs are the actual benefits that are expected to be derived from the scheme and are directly linked to the original set of objectives. The definition of outputs and outcomes are:

- **Outputs** – tangible effects that are funded and produced directly as a result of the scheme; and
- **Outcomes** – final impacts brought about by the scheme in the short and medium/long term.



<b>Measures</b>	<b>Monitoring</b>	<b>Benefits Realisation</b>	<b>Comments</b>
Delivery on time	Through contract management	Through contract management	
Delivery on budget	Through contract management	Through contract management	
Delivery of safe, attractive, direct route	User satisfaction surveys	Includes key aspects of existing highway infrastructure and linked schemes	Delivery will be enhanced through use of existing partnership working
Usage	Counters on route	Requires complementary schemes; publicity and travel planning including LSTF funded elements	Key element of demonstrating secondary benefits – e.g. health & congestion reduction
Mode share	Not measured directly – part of general traffic monitoring	Realisation involves other schemes, e.g. LSTF, ROWIP and Gyratory	Delivery will be enhanced through use of existing partnership working
Health benefits	Not measured directly – derived from usage	Requires complementary schemes; publicity and travel planning including LSTF funded elements	Links with NHS monitoring could enhance this
Decongestion, air quality, noise, CO <sub>2</sub> emissions	Not measured directly – derived from usage	Realisation involves other schemes, e.g. LSTF and highway schemes	

Measures	Monitoring	Benefits Realisation	Comments
Growth (housing, jobs)	Not measured directly – derived from usage	Realisation involves other schemes, including non-transport (e.g. development)	Part of SELEP SEP Performance Management and Local Plan management
Wider economic benefits	Not measured directly – part of wider LGF package	Realisation involves other schemes, including non-transport (e.g. development)	Part of SELEP SEP Performance Management

KCC will conduct a full evaluation of the impact of the scheme in the period after it is completed. The Council will prepare evaluation reports one year and five years after scheme opening, using the information to be collected as set out above to gauge the impact of the scheme on the traffic network, and assess the success of the scheme in meeting the objectives of the KSCMP. Unexpected effects of the scheme will be reported upon and, where appropriate, remedial measures identified.

The programme planning and management cycle set out in Section 2.9 and Figure 3 detail how the Benefits Realisation and Monitoring, Evaluation and Reporting (Section 7.11) take place within an overarching framework. This will ensure that the most appropriate schemes are brought forward for delivery and that the programme is refined over time to take account of past performance.

## 7.9 Key Project Risks and Risk Management Strategy

Although this business case has been developed on the basis of the most relevant and accurate information available, there will be changes to the design as the scheme progresses towards delivery. This introduces a number of risks which will require active management as the design and delivery progresses.

**Table 13 - Key Project Risks**

<b>Risk</b>	<b>Likelihood</b>	<b>Impacts</b>	<b>Mitigation</b>
<b>Delivery Risks</b>			
Landowners reject requests for access or rights of way or unplanned land purchase is required	Low	Moderate	Active consultation
Stakeholders reject scheme as unsuitable or inappropriate	Low	Moderate	Active consultation, building on existing relationships (e.g. Ramblers Association)
Highway design issues prove costly	Moderate	Moderate	Early engagement of highway design specialists
Significant habitat or other wildlife issues arise	Low	High	Early assessment of environmental issues
Key stakeholders (e.g. LEP or DfT) insist on additional quantitative appraisal	Low	Moderate	Prepare Transport Business Case with as much quantitative information as possible
Related highway scheme designs affect scheme or scheme affects these schemes	Moderate	Moderate	Co-ordination of design and explicit requirement in design brief
Unknown levels of demand	Low	Moderate	Undertake more data collection and liaise with planners at local authorities
Benefits achieved do not match those predicted in the example used in the Business Case	Moderate	Moderate	Use Intelligent Investment Tool to ensure best schemes are selected
Anticipated developer contributions are not actually delivered	Moderate	High	Ensure adequate liaison with Planning Officers and developers before schemes are committed
<b>Funding Risks</b>			
Changes / Uncertainty Over Funding Streams: The funding for the scheme is not available.	Low	High	Development of robust Business Case approved by the SELEP.

<b>Risk</b>	<b>Likelihood</b>	<b>Impacts</b>	<b>Mitigation</b>
Project Overspend: Failure to deliver the scheme within available funding.	Low	High	Regular discussion of Local Growth fund with SELEP.
Political Changes of Direction: Changes to Local Authority/SELEP Strategic Direction	Low	High	Careful project management.

## 7.10 Gateway Review Arrangements

Since this scheme is being funded through a completely new arrangement of devolved major scheme funding, the Gateway Review arrangements are as yet undefined. As the Transport Business Case progresses, these will be fully defined and reported, in consultation with the LEP and other stakeholders.

## 7.11 Monitoring, Evaluation and reporting – performance management

The Causal Chain (Figure 5) sets out the primary measures which will be used to judge the success of the scheme. These will be monitored, evaluated and managed as follows:

**Table 14 - Measures of Scheme Success**

<b>Measures</b>	<b>Monitoring</b>	<b>Performance Management</b>	<b>Comments</b>
Delivery on time	Through contract management	Through contract management	
Delivery on budget	Through contract management	Through contract management	
Delivery of safe, attractive, direct route	User satisfaction surveys	Through existing KCC rights of way management	
Usage	Counters on route	Through existing KCC rights of way management and complementary Smarter Choices	Key element of demonstrating secondary benefits – e.g. health & congestion reduction

Measures	Monitoring	Performance Management	Comments
Mode share	Not measured directly – part of general traffic monitoring	Through existing traffic management	
Health benefits	Not measured directly – derived from usage	Through existing KCC rights of way management and complementary Smarter Choices	Links with NHS monitoring could enhance this
Decongestion, air quality, noise, CO <sub>2</sub> emissions	Not measured directly – derived from usage	Through existing traffic management	
Growth (housing, jobs)	Not measured directly – derived from usage	Local Plan management	
Wider economic benefits	Not measured directly – part of wider LGF package	SELEP SEP management	

The programme planning and management cycle set out in Section 2.9 and Figure 3 detail how the Benefits Realisation and Monitoring (Section 7.8) , Evaluation and Reporting take place within an overarching framework. This will ensure that the most appropriate schemes are brought forward for delivery and that the programme is refined over time to take account of past performance.

## **8 Conclusions and Recommendation**

### **8.1 Conclusions**

The proposal to construct a cycleway along the Loose Valley provides a key component of integrated walk and cycle facilities which will enable people in Maidstone to commute, travel to school and undertake active leisure activities. This is exactly the kind of scheme targeted by both the ROWIP and LGF funding.

The scheme will attract significant numbers of users, all of whom will benefit from the improved health attendant on cycling and walking as part of daily life. Since the route is largely off-road, it provides an attractive and valuable leisure route as well as an effective way to travel to work, school or to access other services.

The availability of the route for commuter use will act as a significant attractor for people wishing to move to Maidstone. People will be able to use the path for cycle and walk commuting, both within the Maidstone area and further afield using the rail network. The housing growth plans for the area are dependent on providing an attractive offer and also ensuring that trips generated by new residents will not cause damaging congestion, noise and air pollution.

Complementary schemes include Smarter Choices activities which will encourage use, as well as linked schemes such as cycle parking and improved access to the rail stations. In addition, the highway schemes in the area (including the Maidstone Gyratory) will be made more effective through the delivery of the Loose Valley scheme by 'locking in' the benefits of the highway scheme by transferring to walk and cycle trips which would otherwise be made by car.

Using the Intelligent Investment Tool similarly effective schemes will be developed for delivery in future years.

### **8.2 Recommended Next Steps**

Recommend that development and delivery of the scheme (the example scheme and the future schemes for the remaining five years) should be approved and should proceed.

### **8.3 Value for Money Statement**

The value for money assessment of the proposed scheme has produced an overall qualitative outcome of Very High, on a 4-point scale.

The Value for money assessment has been undertaken from a combination of qualitative and quantitative perspectives.

The scheme has wider impacts that will benefit the town considerably more than solely from a transport perspective and further adjustments have been made with regard to this.

This VfM is based on the quantified initial BCR for the scheme of Very High with further adjustments for non-quantified BCR components, qualitative outcomes and risks/sensitivities.

### **8.4 Funding Recommendation**

Give a recommendation that the funding stream required for the scheme from SELEP, through the LGF, should be released to Kent CC. This involves funding at a rate of £150,000 per year for the six years from 2015/16 to 2020/21 (total £0.9m).

## **Appendix A    Section 151 Officer Letter**



## Appendix B - Worksheets

### HEAT

#### Calculation to Convert Undiscounted Economic Outcome to 2010 Present Value

Economic Appraisal Scenario:

**Kent CC Transport Scheme Business Case: Kent Sustainable Access to Employment and Education (ROWIP)**

**Economic Appraisal of Cyclist Health Benefits (from WHO HEAT Tool): Undiscounted Mortality Benefit p.a. is £201,400**

1st Scheme (Opening) Year		2015		Conversion factor from Resource Cost to Market Prices =		
				No. Years from 1st Scheme Year		
				From Relative Year	To Relative Year	From Actual Year
Discounting Rate		3.50%	per annum	1	30	2015
		3.00%	per annum	31	60	2045
Discount Factor		1.03500	per annum	1	30	2015
		1.03000	per annum	31	60	2045

2010 Present Value Economic Appraisal					
Relative Year	Actual Year if 2010 PV	Discount Factor	Undis-counted Value per annum	2010 Discounted Value per annum	2010 Cumulative Discounted Value
0	2010	1.00000	£0.00	£0.00	£0.00
0	2011	0.96618	£0.00	£0.00	£0.00

0	2012	0.93351	£0.00	£0.00	£0.00
0	2013	0.90194	£0.00	£0.00	£0.00
0	2014	0.87144	£0.00	£0.00	£0.00
1	2015	0.84197	£201,400.00	£169,573.40	£169,573.40
2	2016	0.81350	£201,400.00	£163,839.03	£333,412.43
3	2017	0.78599	£201,400.00	£158,298.58	£491,711.01
4	2018	0.75941	£201,400.00	£152,945.49	£644,656.49
5	2019	0.73373	£201,400.00	£147,773.42	£792,429.91
6	2020	0.70892	£201,400.00	£142,776.25	£935,206.16
7	2021	0.68495	£201,400.00	£137,948.07	£1,073,154.23
8	2022	0.66178	£201,400.00	£133,283.16	£1,206,437.38
9	2023	0.63940	£201,400.00	£128,776.00	£1,335,213.38
10	2024	0.61778	£201,400.00	£124,421.25	£1,459,634.63
11	2025	0.59689	£201,400.00	£120,213.77	£1,579,848.40
12	2026	0.57671	£201,400.00	£116,148.57	£1,695,996.97
13	2027	0.55720	£201,400.00	£112,220.84	£1,808,217.81
14	2028	0.53836	£201,400.00	£108,425.93	£1,916,643.75
15	2029	0.52016	£201,400.00	£104,759.36	£2,021,403.10
16	2030	0.50257	£201,400.00	£101,216.77	£2,122,619.87
17	2031	0.48557	£201,400.00	£97,793.98	£2,220,413.85
18	2032	0.46915	£201,400.00	£94,486.94	£2,314,900.79
19	2033	0.45329	£201,400.00	£91,291.73	£2,406,192.52
20	2034	0.43796	£201,400.00	£88,204.57	£2,494,397.08

# Journey Quality

## Calculation to Convert Undiscounted Economic Outcome to 2010 Present Value

Economic Appraisal Scenario:

**Kent CC Transport Scheme Business Case: Kent Sustainable Access to Employment and Education (ROWIP)**

**Economic Appraisal of Cyclist Journey Quality Benefits (from WebTAG): Saving of 20min per cyclist for 60,000 cyclists**

1st Scheme (Opening) Year		2015		Conversion factor from Resource Cost to Market Prices =		
				No. Years from 1st Scheme Year		
				From Relative Year	To Relative Year	From Actual Year
Discounting Rate		3.50%	per annum	1	30	2015
		3.00%	per annum	31	60	2045
Discount Factor		1.03500	per annum	1	30	2015
		1.03000	per annum	31	60	2045

2010 Present Value Economic Appraisal					
Relative Year	Actual Year if 2010 PV	Discount Factor	Undis-counted Value per annum	2010 Discounted Value per annum	2010 Cumulative Discounted Value
0	2010	1.00000	£0.00	£0.00	£0.00
0	2011	0.96618	£0.00	£0.00	£0.00
0	2012	0.93351	£0.00	£0.00	£0.00
0	2013	0.90194	£0.00	£0.00	£0.00
0	2014	0.87144	£0.00	£0.00	£0.00

1	2015	0.84197	£84,360.00	£71,028.86	£71,028.86
2	2016	0.81350	£84,360.00	£68,626.91	£139,655.77
3	2017	0.78599	£84,360.00	£66,306.20	£205,961.97
4	2018	0.75941	£84,360.00	£64,063.96	£270,025.93
5	2019	0.73373	£84,360.00	£61,897.54	£331,923.47
6	2020	0.70892	£84,360.00	£59,804.39	£391,727.86
7	2021	0.68495	£84,360.00	£57,782.02	£449,509.88
8	2022	0.66178	£84,360.00	£55,828.04	£505,337.92
9	2023	0.63940	£84,360.00	£53,940.13	£559,278.06
10	2024	0.61778	£84,360.00	£52,116.07	£611,394.13
11	2025	0.59689	£84,360.00	£50,353.69	£661,747.82
12	2026	0.57671	£84,360.00	£48,650.91	£710,398.73
13	2027	0.55720	£84,360.00	£47,005.71	£757,404.44
14	2028	0.53836	£84,360.00	£45,416.15	£802,820.59
15	2029	0.52016	£84,360.00	£43,880.33	£846,700.92
16	2030	0.50257	£84,360.00	£42,396.46	£889,097.38
17	2031	0.48557	£84,360.00	£40,962.76	£930,060.14
18	2032	0.46915	£84,360.00	£39,577.55	£969,637.69
19	2033	0.45329	£84,360.00	£38,239.18	£1,007,876.87
20	2034	0.43796	£84,360.00	£36,946.06	£1,044,822.93

# Carbon Emissions

## Calculation to Convert Undiscounted Economic Outcome to 2010 Present Value

Economic Appraisal Scenario:

**Kent CC Transport Scheme Business Case: Kent Sustainable Access to Employment and Education (ROWIP)**

**Economic Appraisal of Cyclist Carbon Benefits (from DfT Carbon Tool): Saving of 160t CO2 p.a.**

1st Scheme (Opening) Year		2015		Conversion factor from Resource Cost to Market Prices =		
				No. Years from 1st Scheme Year		
				From Relative Year	To Relative Year	From Actual Year
Discounting Rate		3.50%	per annum	1	30	2015
		3.00%	per annum	31	60	2045
Discount Factor		1.03500	per annum	1	30	2015
		1.03000	per annum	31	60	2045

2010 Present Value Economic Appraisal					
Relative Year	Actual Year if 2010 PV	Discount Factor	Undis-counted Value per annum	2010 Discounted Value per annum	2010 Cumulative Discounted Value
0	2010	1.00000	£0.00	£0.00	£0.00
0	2011	0.96618	£0.00	£0.00	£0.00
0	2012	0.93351	£0.00	£0.00	£0.00
0	2013	0.90194	£0.00	£0.00	£0.00
0	2014	0.87144	£0.00	£0.00	£0.00

1	2015	0.84197	£9,184.19	£7,732.84	£7,732.84
2	2016	0.81350	£9,321.95	£7,583.41	£15,316.25
3	2017	0.78599	£9,461.78	£7,436.87	£22,753.12
4	2018	0.75941	£9,603.71	£7,293.16	£30,046.29
5	2019	0.73373	£9,747.76	£7,152.23	£37,198.52
6	2020	0.70892	£9,893.98	£7,014.03	£44,212.55
7	2021	0.68495	£10,058.88	£6,889.78	£51,102.33
8	2022	0.66178	£10,223.78	£6,765.92	£57,868.26
9	2023	0.63940	£10,388.68	£6,642.56	£64,510.82
10	2024	0.61778	£10,553.58	£6,519.81	£71,030.63
11	2025	0.59689	£10,718.48	£6,397.76	£77,428.39
12	2026	0.57671	£10,883.38	£6,276.51	£83,704.89
13	2027	0.55720	£11,048.27	£6,156.14	£89,861.03
14	2028	0.53836	£11,213.17	£6,036.74	£95,897.77
15	2029	0.52016	£11,378.07	£5,918.37	£101,816.14
16	2030	0.50257	£11,542.97	£5,801.10	£107,617.25
17	2031	0.48557	£12,614.82	£6,125.39	£113,742.64
18	2032	0.46915	£13,686.67	£6,421.11	£120,163.75
19	2033	0.45329	£14,758.52	£6,689.82	£126,853.57
20	2034	0.43796	£15,830.36	£6,933.02	£133,786.59