

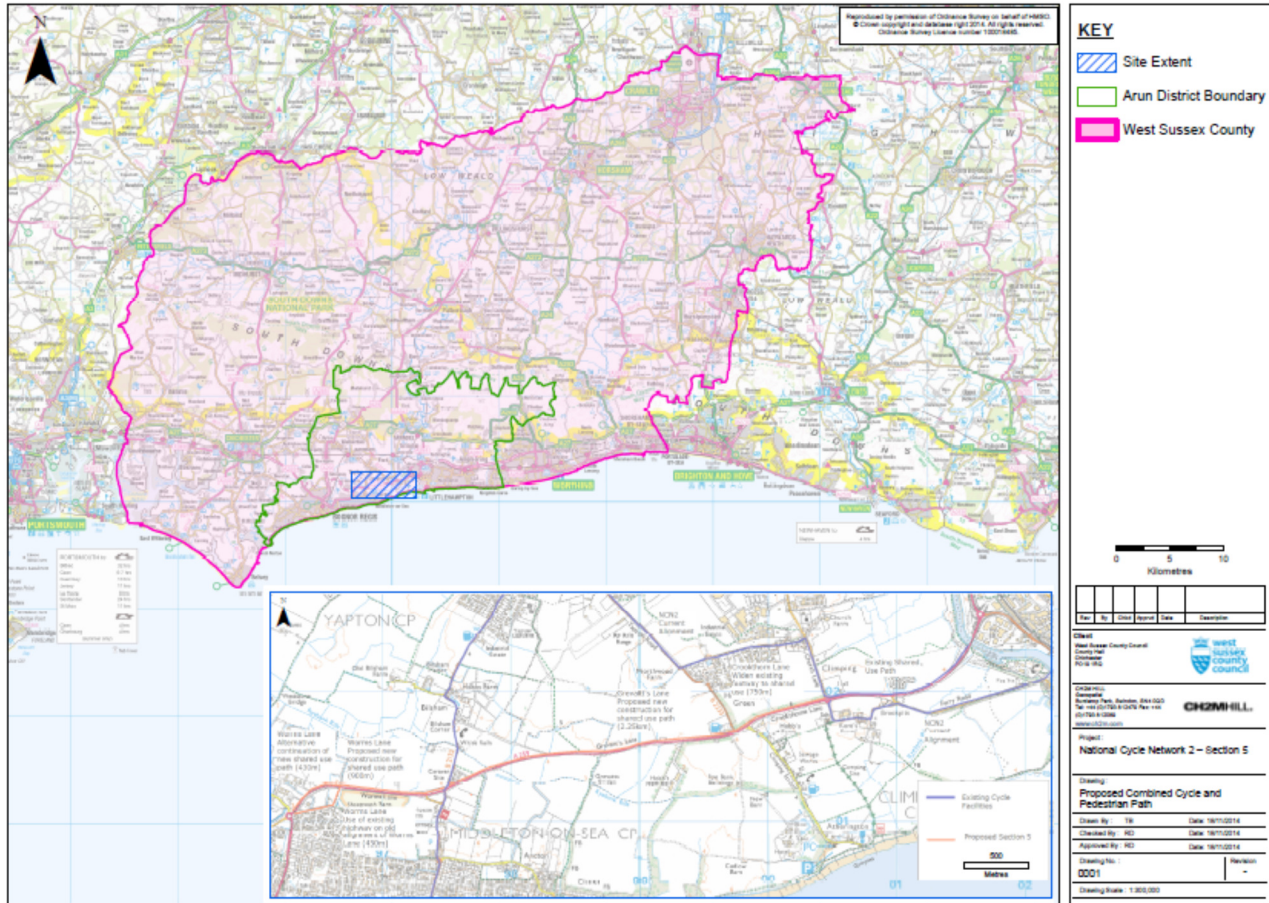
Coast to Capital Local Transport Body Sustainability and Resilience Schemes Application Form

WHO - Scheme Promoter and Partners			
LTA/ Proposer:	West Sussex County Council	Scheme name & [District/ Borough]:	National Cycle Network Route 2 Section 5 (Littlehampton to Bognor Regis) Scheme, Arun District
Contact details:	Paul Eagle +44 (0)330 222 5298 paul.eagle@westsussex.gov.uk	Partners [in joint submissions]:	
WHAT & WHERE – Outline description, scope & maps			
Type of scheme: (Sustainability package, resilience scheme, hybrid)		Sustainability package	
Scheme description	<p>The proposed scheme forms part of the National Cycle Network Route 2 (NCN2). NCN2 aims to provide a continuous cycle path from Dover to Penzance. For various reasons the route is not fully completed with several outstanding sections in West Sussex still to be constructed.</p> <p>There is currently no suitable direct cycle facility along the A259 for cyclists travelling between the towns of Littlehampton and Bognor Regis. The A259 is considered to be a significant barrier to cycling due to fast vehicle speeds and high volumes of traffic, particularly HGVs. The current signed NCN2 route is indirect and goes via Yapton and is a significant diversion for those travelling between the towns.</p> <p>The NCN2 Section 5 Scheme will create a direct cycle facility between Littlehampton and Bognor Regis. This will involve the construction of a 3 metre wide combined cycle and foot path alongside the northern side of A259 between Church Lane Climping junction and the eastern end of the Bognor Regis Relief Road (BRRRd) at Felpham, along with signing upgrades. At the western end it will connect with the new cycle facility into Felpham and new homes served by the BRRRd. The eastern end will connect with an existing combined cycle & footway along A259 towards employment and new housing in Littlehampton. New crossing points will be provided at Church Lane Climping, B2132/A259 'Comet Corner' and Worms Lane. The total length of the works within this section is 4.35km.</p> <p>The dedicated cycle and foot path will be segregated from traffic. It will require widening of the existing footway, between Church Lane and B2233 Yapton Road; between Yapton Road and BRRRd it will be a new construction. All of the proposed works will take place within the highway boundary and no land outside the highway boundary will be required, but some lopping or tree removal may be required.</p> <p>The majority of the route is rural but it provides a direct alternative between the towns, the existing cycle route will remain to Yapton to enable connections from there.</p>		

The location and route of the proposed NCN2 Section 5 is presented in Figure 1.

Maps

Figure 1: Location map of the NCN2 Section 5



Source: CH2M HILL (2014) Location Map of NCN2 Section 5

HOW MUCH & WHEN – Estimated construction costs and construction timetable

Est. Costs:	£900,000 This includes a 10% risk factor on the construction costs and a 25% optimism bias. It excludes VAT. The maintenance costs are expected to be an average of £3,000 a year excluding VAT.			Start and end of construction:	The detailed design work and construction of Section 5 is anticipated to commence in the 2015/ 2016 financial year subject to availability of funding. The time scale has not yet been finalised.	
Spend Profile	2015-16: (£ million) £0.9	2016-17: (£ million)	2017-18 (£ million)	2018-19: (£ million)	2019-20: (£ million)	2020-21: (£ million)
Funding expectations	100% (£0.9 million) of the funds required for the scheme are being sought from the C2C LEP via the CCLTB.					

WHY IT SHOULD BE FUNDED

Summary of the Key Scheme Benefits

The benefits of constructing the combined cycle and foot path will include transport, economic, social and environmental aspects. By creating a path for cyclists and pedestrians separated from the motorised traffic, the Section 5 of NCN2 will create a direct cycle route and significantly improve the access for cyclists and pedestrians on the A259 Littlehampton and Bognor Regis. A safer environment will be created and accidents will be reduced. The journey ambience for cyclists using the route will also be significantly improved. As a result more people will be encouraged to take up cycling and walking as a mode of sustainable transport. This will lead to a reduction in motor vehicle use and the associated benefits of decongestion and reduced carbon emissions. This will contribute to a future that is more sustainable.

The improved access for cyclists and walkers will also increase their connectivity to local facilities and employment, particularly for users that would not otherwise be able to afford access to a private motor vehicle. The increase in connectivity and increase in cycling and walking will help to enable people to access work in Littlehampton and Bognor Regis, and will increase the footfall for local business, attracting more visitors, leading to increased business turnover and associated new jobs and GVA. Ultimately leading to economic growth supporting the C2C Strategic Economic Plan (C2C SEP).

As a result of an increase in cycling and walking, new users will also increase their physical activity. Through an increase in physical activity, users will become fitter and healthier, more able to fight off illness and reduce risk of disease. Consequently there are health benefits to the scheme as well. These can be translated into economic benefits through reduced time off work sick, and reduced NHS costs.

The transport, economic, social and environmental impacts of the NCN2 Section 5 are presented in the following sections. Details on the methodology for estimating impacts is provided in the NCN2 Section 5 CCLTB Funding Application Supporting Document.¹

Outline business case of key criteria ***[maximum score = 5 per criteria]***

Expected economic benefits [transport and scheme related]:

- Value for money, including BCR (if known) or similar measure.
- Expected impact on journey times, reliability and resilience
- Encouraging sustainable travel
- Expected impact on road safety casualties
- Valuing public realm
- Other transport benefits

[Scheme Score = 5]

Benefit Cost Ratio

In order to provide a broad indication of the transport benefits of the scheme a Benefit Cost Ratio (BCR) has been calculated drawing on the guidance in WebTAG's Active Mode Appraisal². The benefits included in the BCR are those that we have been able to monetise in the absence of a transport model. These are accident rate reduction, journey ambience, decongestion, carbon reduction and health.

Four scenarios have been explored based on 30 year and 60 year appraisal periods, with and without health benefits. This provides a range of high and low scenarios for the BCR for the scheme. The benefits and costs have been converted into 2010 prices and discounted to Present Value Benefits and Present Value Costs (PVB and PVC)

- The range of 30 and 60 year appraisal periods has been used to indicate the range in the BCR depending upon the potential lifetime of the project. Based on standard DfT guidance and a review of other studies the estimated lifetime of the project could range from 30 to 60 years.

¹ CH2M HILL (2014) NCN2 Section 5 CCLTB Funding Application Supporting Document

² TAG Unit A5-1 Active Mode Appraisal (DfT January 2014)

- Several important benefits have not been monetised due to a lack of data to enable quantification. In particular health benefits are likely to be the most significant benefit of the scheme. In order to quantify health benefits a detailed assessment would be required using data that is unavailable for the project. In absence of this data it has been estimated that the health benefits will be at least 50% of the total benefits of the scheme.³ Scenarios with and without health benefits have been included in the assessment.

For more details on the methodology and rational for assumptions please refer to the Funding Application Supporting Document.⁴

The BCRs range from 1:5 to 4.1:1 with the central case standing at 2:1. Table presents the results of the four scenarios.

Table 1 Summary of Benefit Cost Ratio Scenarios based on appraisal period and health benefit variations

Appraisal period	Excluding health benefits	Including health benefits
60 yr BCR	2.1	4.1
30 yr BCR	1.5	3

Source: CH2M HILL (2014)

Reduced accident rate

The implementation of a cycle and pedestrian path segregated from the motorised traffic is likely to lead to a reduction of accidents. Over a 60 year period the total value of reduced pedal cyclists is likely to be approximately £1.471 million and for pedestrian accidents it is forecast to be approximately £29,000 (rounded to the nearest £1,000). This is a total saving of £1.500 million over 60 years.

Modal shift to sustainable transport

The scheme will encourage sustainable travel. Through improved access, connectivity and reduced accidents, cycling and walking will become a more viable and attractive option locally for inter urban journeys and more local trips to surrounding villages and the South Downs National Park (SDNP).

- Increase in cycle journeys

Over a 60 year period the increase in cycle trips due to the NCN2 Section 5 Scheme could amount to 1.20 million additional cycling trips along its' route.

- Reduction in motor car journeys

As a result of the increase in cycle trips there is likely to be a reduction in motor vehicle trips. Over 60 years over 1.281 million km in car journeys could be reduced.

Journey ambience

Journey ambience for cyclists resulting from the segregated cycle and footpath will be significantly improved. In a monetised value this is estimated to be worth £2.464 million in 2010 prices over a 60 year period.

³ Department for Transport (2014) Claiming the Health Dividend

⁴ CH2M HILL (2014) NCN2 Section 5 CCLTB Funding Application Supporting Document

User cost savings

The modal shift to sustainable transport modes of cycling and walking will result in travel cost savings for users. The costs of traveling by bicycle or walking are far lower than travelling by motor vehicle.

Decongestion

The potential decongestion savings over a 60 year period could amount to approximately £160,000 in 2010 prices.

Reduced carbon emissions

The monetised value of the potential carbon savings over 60 years as a result of the modal shift to cycling caused by the scheme is estimated to be £142,000 in 2010 prices.

A summary of the transport benefits are presented in Table 2. Details on the methodology used and references is provided in the Funding Application Supporting Document.⁵

Table 2: Summary of transport benefits over 60 years

Transport Indicator	NCN2 - Section 5 Assessment
Reduced accident rate	£1,500,000.00
Modal shift to sustainable transport:	
- Increase in cycle journeys	1.20 million additional cycling trips
- Reduction in motor car journeys	1.281 million km in car journeys could be reduced
Journey ambience	£2.464 million
User cost savings in car maintenance and fuel	Qualitative assessment only
Decongestion	£160,000
Reduced carbon emissions	£142,000

Source: CH2M HILL (2014)

⁵ CH2M HILL (2014) NCN2 Section 5 CCLTB Funding Application Supporting Document

**Expected economic benefits
[economic growth]:**

- Retention of existing jobs or creation of new jobs
- Unlocking or improving access to new dwellings
- Encouragement of new businesses, or protection of existing businesses.
- Other economic benefits

[Scheme Score = 2]

The economic benefits of the NCN2 Section 5 Scheme have been categorised into the design/construction stage and the operational lifetime of the cycle and foot path.

Construction stage employment and GVA

The main economic benefits during the construction stage are temporary employment and GVA. It is anticipated that there will be a need for 6 temporary jobs. An estimated £441,000 in GVA could be generated during this stage of the Scheme.

Operational stage - Increased business turnover, employment and GVA

During the operational lifetime of the Scheme, as a result of increased connectivity there is likely to be an increase in business turnover in local industries, tourism (such as into the South Downs National Park or to the coast at Atherington), and cycling related industries due to the greater footfall from cycling. This will lead to an increase in employment and GVA in Arun District, and government revenues associated with this.

Other economic benefits

Other economic benefits can be expected as a result of the Scheme. These include cost savings to the NHS due to reduced incidents of ill-health associated with increased physical activity. These are discussed in the Social Distributional Section.

A summary of the economic benefits are presented in Table 3.

Table 3: Summary table of economic benefits

Economic Indicator	NCN2 – Section 5 Assessment
Construction employment	6 temporary jobs
Construction related GVA	£441,000
Operational employment	Qualitative assessment only
Business turnover and GVA <ul style="list-style-type: none">o local industryo tourism industryo cycling industry	Qualitative assessment only
Government revenues (tax)	Qualitative assessment only

Source: CH2M HILL (2014)

<p>Social Distributional Impact:</p> <ul style="list-style-type: none"> • Expected regeneration & deprivation impact • Expected impact on severance, physical activity, accessibility 	<p>[Scheme Score = 4]</p> <p>The social benefits of the scheme can be broadly categorised into three groups, benefits related to improving access and connectivity, benefits related to increased physical activity, and the social benefits related to economic growth such as regeneration.</p> <p>Increased accessibility and connectivity</p> <p>The NCN2 Section 5 Scheme will increase accessibility of the A259 route to cyclists and pedestrians by creating a combined cycle and foot path separate from the main road. The path will also increase connectivity for the road users to communities and employment along the whole route of the NCN2, particularly for non-car users who may have otherwise not been able to access the A259 leading to economic benefits mentioned above. Access and connectivity will be improved to residential developments in Littlehampton (West Bank c1,000 new homes), Barnham (2,000) and Bognor Regis (650 – under construction), also to planned employment sites in Bognor Regis (Butlin's, University of Chichester and Enterprise Bognor Regis).</p> <p>Increased physical activity and improved health and wellbeing</p> <p>As a result of the scheme there will be an increase in physical activity and associated health benefits.</p> <p>There is a large body of evidence that shows the link between increased physical activity and improvements to health such as reduced rates of lifestyle related diseases. This will lead to a reduction in NHS costs due to reduced rates of illness.</p> <p>During a sixty year appraisal period it is expected that over the lifetime of the scheme an additional 1.2m cycle journeys will be made. It is possible that £4.266 million in health benefits could be achieved (in 2010 prices) making the total monetised benefits £8.532 million.</p> <p>Regeneration benefits</p> <p>Arun District has high levels of economic activity and employment. However the district has low income levels and pockets of deprivation. The NCN2 Section 5 and wider NCN2 network will support regeneration of these pockets of deprivation through improved access and connectivity to employment sites for low income families that may not have access to a motor vehicle.</p>
<p>Environmental impact:</p> <ul style="list-style-type: none"> • Expected impact on carbon emissions • Expected impact on air quality • Expected impact on noise/natural and urban environment 	<p>[Scheme Score = 4.5]</p> <p>A high level environmental appraisal was carried out for the proposed scheme. Issues considered as part of the appraisal comprise archaeology and cultural heritage, air quality, ecology, water, landscape and townscape, geology and ground conditions, and noise and vibration. The appraisal concluded that:</p> <ul style="list-style-type: none"> • During construction, some adverse impact on air quality as a result of dust and emissions from construction plant and equipment is likely, but the effects are likely to be temporary and localised, and can be mitigated by the application of suitable controls during construction. No significant impacts are envisaged.

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| | <ul style="list-style-type: none">• During operation, the project is likely to encourage a greater use of cycling (see below), which is sustainable and non-polluting form of transport. Some reduction in vehicle and carbon emissions expected.• No impact on designated or known features of cultural heritage interest is envisaged. However, the route lies along an area of high archaeological potential. Provided that the works are undertaken within the existing highway boundary, construction is not likely to result in any impact on buried archaeology. It is recommended that this is confirmed with West Sussex County Council's Environment & Heritage as the project progresses during detailed design.• No impact on designated ecological sites is envisaged, but reptiles are known to be present at Comet Corner (A259/B2132) and possibly along other sections of the route. Other protected species including Great Crested Newts, roosting bats and breeding birds are also likely to be present in local ponds, trees, hedges and grassland along the route. It is recommended that a site visit is undertaken during detailed design to determine the need for further specialist surveys and mitigation. With careful detailed design and mitigation (which may include compensatory habitat), it is envisaged that significant long term adverse impacts can be avoided.• No significant impact on the landscape or views is envisaged, although consideration will need to be given during detailed design to the potential loss of trees and potential impacts on a small number of local residential receptors. With careful detailed design, no significant impact on views is envisaged.• A drainage ditch passes along the highways boundary, connecting to Ryebank Rife which discharges to the sea. It will be important to ensure that mitigation is put in. With mitigation in place to avoid any risk of pollution to the ditch during construction, no significant impact is envisaged. No long term impact on water quality or local flood risk is envisaged, but any works affecting the ditch will need consent and suitable drainage will need to be maintained.• No impact on designated geological sites is envisaged, and, with suitable mitigation, no impact as a result of disturbance of contaminated land is envisaged.• Noise from construction works may be audible at a small number of local residential properties along the A259, but elevated noise levels will be temporary and will last for a short duration at any single location. With mitigation in the form of adherence to industry best practice for construction times and noise levels, and given the existing noise levels associated with traffic on the A259, no significant nuisance is likely. No significant impact during operation is envisaged. |
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Contribution to the Strategic Economic Plan

- How does the scheme contribute to the objectives and priorities of the SEP.
- The five transport objectives
- Contribution to other objectives

[Scheme Score = 4.5]

The NCN2 will support the C2C SEP policy through increasing sustainable transport, improved connectivity, reliability, capacity, quality and resilience, as well as supporting economic growth.

Sustainability

Sustainability is an important component of the C2C SEP. The C2C SEP outlines the requirements for sustainable transport packages that, amongst other objectives will improve accessibility to rural areas and improve road safety. The NCN2 Section 5 will create an enabling environment for sustainable transport. Through improved access connectivity and reduced accidents, cycling and walking will become a more viable and attractive option locally. In addition to increase cycle trips there will be reduced car trips contributing to decongestion and carbon savings.

Transport objectives

Transport is identified in the C2C SEP as a key priority underpinning the success of the sub region as an enabler and driver of growth. It is the largest element of the C2C LEP Growth Deal. There are five key overarching themes which have been identified that aim to tackle the areas transport issues. The NCN2 Section 5 Scheme will support all of the five Transport Objectives. The linkages of the scheme to the Transport Objectives are presented in Table 4.

Table 4: Summary of NCN2 Section 5 support for C2C LEP SEP Transport Objectives

C2C LEP SEP Transport Objectives	Section 5
Connectivity	The Scheme will increase accessibility of the A259 to cyclists and pedestrians. The improved accessibility will also increase connectivity for the road users to communities and employment along the route of the NCN2. In particular people that do not have access to a motor vehicle but that do have the means to acquire a bike would be able to travel across the area more efficiently and safely, increasing connectivity to potential new work and social opportunities.
Reliability	Journey reliability will be improved as a result of the scheme. There will be reduced route uncertainty. Cyclists and pedestrians can be more confident that there will be dedicated access for them on the route and that they will not be subject to delays that occur in motorised traffic.
Capacity	The scheme will increase capacity on the A259 route to cater for cyclists and pedestrians by creating a dedicated cycle and foot path segregated from the motorised traffic.

	<table border="1"> <tr> <td data-bbox="591 197 954 415">Quality</td><td data-bbox="954 197 1446 415">The scheme will have a significant impact on journey quality of cyclists and pedestrians. The creation of a separate path will enable cyclists to cycle more efficiently, safely and more easily. This will improve the overall journey quality and experience, reducing stress of the cyclists and encouraging more people onto their bikes.</td></tr> <tr> <td data-bbox="591 415 954 634">Resilience</td><td data-bbox="954 415 1446 634">Through supporting sustainable transport modes the transport network service will be diversified enabling people to travel safely by bicycle. Users have significant control in planning their cycling journeys and it is a predictable mode of transport compared to other modes such as rail or motor vehicles that may be subject to unplanned delays.</td></tr> </table> <p>Linkage to C2C SEP Economic Objectives</p> <p>The overarching economic objectives of the C2C SEP for the sub region include increasing net private sector jobs; and increasing GVA to reduce the gap with the South East. The Coastal Corridor where the NCN2 is located is one of the key spatial areas in the C2C SEP. The area has a diverse economy with a strong horticulture industry and Advanced Engineering including medical device manufacturing, marine, tourism and the digital and creative industries. The C2C SEP states that the Coastal Growth Deal is expected to create 5,100 new jobs, 5,100 homes and 79,237 m2 of employment space in the area. The area's infrastructure faces challenges with congested roads, particularly along the A27 and A259. The C2C LEP recognises the need to improve the local infrastructure to maintain the attractiveness of the Coastal Corridor and to support new developments that are taking place in the area. In order to improve the infrastructure the Coastal Corridor spatial priorities include development of the NCN2. By constructing the Section 5 of the NCN2 the route will improve accessibility and connectivity to local employment and business sites. It will also encourage growth of the tourism industry by attracting people for cycling trips. As a result there will be an increase in spending in the tourism and leisure industry and a growth in employment and GVA. Cycling itself is a generator of GVA through purchasing bikes, gear, and bike maintenance. Contributing to the C2C SEP economic objectives.</p>	Quality	The scheme will have a significant impact on journey quality of cyclists and pedestrians. The creation of a separate path will enable cyclists to cycle more efficiently, safely and more easily. This will improve the overall journey quality and experience, reducing stress of the cyclists and encouraging more people onto their bikes.	Resilience	Through supporting sustainable transport modes the transport network service will be diversified enabling people to travel safely by bicycle. Users have significant control in planning their cycling journeys and it is a predictable mode of transport compared to other modes such as rail or motor vehicles that may be subject to unplanned delays.
Quality	The scheme will have a significant impact on journey quality of cyclists and pedestrians. The creation of a separate path will enable cyclists to cycle more efficiently, safely and more easily. This will improve the overall journey quality and experience, reducing stress of the cyclists and encouraging more people onto their bikes.				
Resilience	Through supporting sustainable transport modes the transport network service will be diversified enabling people to travel safely by bicycle. Users have significant control in planning their cycling journeys and it is a predictable mode of transport compared to other modes such as rail or motor vehicles that may be subject to unplanned delays.				
<p>Local Indicators:</p> <p>Local indicators and circumstances that help to explain the need for the scheme.</p>	<p>Not scored.</p> <p>The following local indicators are of significance for the Borough:</p> <ol style="list-style-type: none"> 1. Employment - residence base: 42,862 in Arun District (2013-14; Business Register and Employment Survey, Nomis) 2. Employment Rate 83.9% in Arun District (2013; Annual Population Survey, Nomis) 3. % of working age population (aged 16-74) in employment using walking or cycling as main mode to get to work: 3.6% in Arun District (2011 Census) 4. Congestion – indicator being developed based on either average delay on links (Trafficmaster data) or million vehicle km on principal roads 5. Index of Multiple Deprivation (IMD) - number of LSOAs in Borough or District within the top 20% most deprived nationally (2010) 8 wards in Arun District are within the top 20% most deprived nationally 				

	6. Index of Multiple Deprivation (IMD) - average score for the District is 18.57 (2010)
SCORE SUMMARY	
Total score: (out of 25)	20
Local priority: (Ranking in order of schemes submitted by the same promoter in this round).	

DRAFT

Scoring criteria

Scores	Expected Economic benefits (transport and scheme related)	Expected Economic benefits (economic growth)	Socio-distributional Impact	Environmental Impact	Strategic Economic Plan
Score: 5 [Green]	Expected BCR of 2+ (if known) Significant beneficial impact on transport indicators.	Support for delivery of new jobs, housing & employment floor space in area clearly expected.	Significant positive benefits expected, such as supporting regeneration, improving accessibility, reducing severance and/or promoting physical activity.	Likely to lead to a reduction in carbon emissions and have limited impact on the natural environment and/or air quality and noise standards.	Clear linkage to one or more SEP policies and priorities
Score:3 [Amber]	Expected BCR of 1.5 to 2 (if known) Some, but limited beneficial impact on transport indicators.	Expected to support retention of existing jobs & help deliver some housing.	Some socio-distributional and well-being impacts expected.	Limited or neutral impact on carbon emissions, natural environment and/or air quality shown.	Some linkage to SEP policies and priorities.
Score 1: [Red]	Expected BCR of under 1.5 (if known) Very limited or negative impact on transport indicators.	Very limited linkage with delivery of employment and/or housing expected.	Very limited or negative impact on distributional and well-being impacts expected.	Likely to have a negative impact on carbon emissions, local air quality and/or the natural environment.	Weak link to the SEP.

Local Indicators

7. Employment - residence base (2012; Annual Population Survey, Nomis)
8. Employment Rate (2012; Annual Population Survey, Nomis)
9. Number of jobs - workplace base (2011, Business Register and Employment Survey, Nomis)
10. Business survival rates (1 year) (2011, Business Demography, ONS)
11. Number of businesses per 10,000 working age population (2012, ONS)
12. Business births per 10,000 working age population (2011, Business demography; 2011; and Annual Population Survey, ONS)
13. JobSeekers Allowance claimant count - % of economically active population (April 2013, Nomis)

Transport Effects

1. % of working age population (aged 16-74) in employment using walking or cycling as main mode to get to work (2011 Census)
2. % of working age population (aged 16-74) in employment using bus, train, underground, tram or metro as main mode to get to work (2011 Census)
3. Congestion – indicator being developed based on either average delay on links (Trafficmaster data) or million vehicle km on principal roads

Regeneration Impact

1. Amount of planned new housing up to common future end year (LDF documentation – various)
2. Amount of planned new commercial floorspace (sq m) up to common future end year (LDF documentation – various)
3. Amount of planned new retail floorspace (sq m) up to common future end year (LDF documentation – various)
4. Index of Multiple Deprivation (IMD) - number of LSOAs in Borough or District within the top 20% most deprived nationally (2010)
5. Index of Multiple Deprivation (IMD - average score for District (2010)