

## Appendix 3: Appraisal Summary Table

		Date produced:	20th April 2013			Contact:	
Newcastle Cycling City Ambition						Name	Newcastle City Council
						Organisation	
						Role	Promoter/Official
Summary of key impacts		Assessment					
		Quantitative			Qualitative	Monetary	Distributional
						£(NPV)	7-pt scale/ vulnerable grp
<p>There is limited evidence that a change in the mode share away from motorised transport anticipated by these proposals will have a positive impact on the flows of traffic for existing business users improving journey time reliability. A mode shift to cycling for business use will reduce the cost of fuel to business and will increase the reliability of those individual journeys.</p>	Value of journey time changes (£)			Slight positive			
	Net journey time changes (£)						
	0 to 2min	2 to 5min	> 5min				
<p>Reliability impact on all users has been calculated. Over 2 million car km are estimated to be replaced each year. This reduction in car trips will provide decongestion benefits for all road users, including those travelling for business. More specifically drivers who shift to cycle use will reduce impact of time delay as cycling is not subject to unforeseen traffic issues.</p>				Slight positive			
<p>Evidence shows that where there is a reduction in car traffic and a corresponding increase in walking and cycling, this will result in an increase in revenue for local business and consequently lead to an increase in job creation. Additionally, the construction of cycle routes results in the creation of associated direct and indirect jobs.</p>	54 jobs created through route construction and 7 employed at Hub and through Community Outreach initiatives			Large positive			
<p>Limited evidence suggests that increased access to the city centre area contributes to an agglomeration effect that adds to the wider impact of a scheme. The proposed interventions greatly improve the accessibility for large numbers of the population.</p>				Neutral			
<p>The main source of noise in the area of the proposed schemes is from road traffic. A significant number of short journeys could be converted to walking or cycling. The proposals within this bid will result in an anticipated modal shift from motorised travel to cycling, with a corresponding reduction in noise pollution. The reallocation of road space will have a positive impact on pedestrian and cyclist proximity to the noise of road traffic.</p>					Included in decongestion benefit		
<p>The main source of poor local air quality in the area of the proposed schemes comes from road traffic. The proposed schemes are anticipated to result in a reduction in the level of car traffic, which will result in a corresponding improvement of local air quality. The reallocation of road space will also have a positive impact on the experience of pedestrians and cyclists.</p>					Included in decongestion benefit		

<p>Newcastle City Council has a strong commitment to cutting greenhouse gases. The Newcastle Declaration on Climate Change includes a 4% reduction in fuel use through walking, cycling and public transport. The reduction in car trips anticipated by these proposals will have a positive effect on the level of GHG emissions from motorised transport.</p>	<p>Change in non-traded carbon over 60y (CO2e)</p>	<p>19,137</p>		<p>£126,538 (10 years) - £193,472 (30 years)</p>	
<p>The proposals fit well with the scale, landform and pattern of the landscape. They incorporate measures for mitigation to ensure they will blend in well with surrounding landscape. They will enable some sense of place and scale to be restored through well-designed planting and mitigation measures, enhancing the character of the area. There is no conflict with government policy towards protection of the countryside.</p>	<p>Change in traded carbon over 60y (CO2e)</p>	<p>-</p>	<p>Slight beneficial (positive) effect</p>		
<p>The re-allocation of the road space within the proposals will bring a transformational change to the townscape. The proposals will enable some sense of place and scale to be restored through well-designed mitigation measures. Appearance and land use will be positively enhanced by the proposals. There will be no conflict with government policy of enhancing urban environments.</p>		<p>Slight beneficial (positive) effect</p>			
<p>The re-allocation of the road space within the proposals will have a positive impact on the streetscape and will have no negative impact on the historic resources of the city.</p>		<p>Neutral effect</p>			
<p>The proposals are typical of the locality and the overall effect of the scheme will not have a detrimental impact on biodiversity. Reduction in car traffic, and curtailing the demand for motorised travel could reasonably be expected to have a positive impact on local biodiversity.</p>		<p>Neutral</p>			
<p>The provision of cycle infrastructure improvements is seen as an opportunity to promote designs to support improved surface water management. Any use of existing hard surfaces will add no detrimental impact on flood risk.</p>		<p>Negligible</p>			
<p>There is evidence to suggest that a change in the mode share away from motorised transport anticipated by these proposals will have a positive impact on the flows of traffic for existing commuters improving their journey time reliability. A mode shift to commuter cycling use will reduce the cost of transport for the individual and will increase the reliability of those individual.</p>	<p>Value of journey time changes (£)</p>		<p>Estimated additional trips = 1,232,177 Census data indicate mode share for cycling to work to range between 1.0% and 5.5% for wards in the Newcastle City Council area therefore commuting cyclists are anticipated to benefit.</p>		
<p>Net journey time changes (£)</p>					
<p>0 to 2min</p>	<p>2 to 5min</p>	<p>&gt; 5min</p>			

Over 2 million car km are estimated to be replaced each year. This reduction in car trips will provide decongestion benefits for all road users. More specifically drivers who shift to cycle use will reduce impact of time delay as cycling is not subject to being substantially impacted by traffic congestion.			£4,418,211 (10 years) - £6,755,235 (30 years)	
According to the Health Impact of Physical Inactivity (HIPI) tool, 1,196 deaths in Newcastle are preventable through physical activity. The WHO's Health Economic Assessment Tool (HEAT) allows us to quantify the health benefits of cycling in terms of reduction in the relative risk of all-cause mortality.			£22,756,316 (10 years) - £64,502,473 (30 years)	
The proposed interventions will make walking and cycling a more attractive, safe and comfortable option than either the existing cycle option or other transport alternatives.			£6,287 (10 years) - £14,373 (30 years)	
Using the webTAG approach to valuing accident reduction, the amount of car km replaced by walking and cycling would result in a reduction of casualties by virtue of the fact that there will be a reduction in car km that cause them.			Included in decongestion benefit	
Investment in cycling provides a massive increase in the resilience of a local transport network. In the event of a catastrophic shock such as a fuel crises, or even a more gradual reduction in the affordability of motorised transport, the ability to be able to transport people around the city in a safe and efficient manner will strengthen the city's ability to cope with such an event.		Moderate positive		
108 LSOA (61%) were deemed to be at risk of Transport Poverty according to Sustrans report "Locked Out: Transport Poverty in England". This combines data on income, access to essential services and access to public transport. The proposed schemes will provide a improved means of accessing services by sustainable transport. The schemes will open up access to all local facilities and to employment.		large positive		
The status of Newcastle's Transport Poverty scoring is largely derived from its income variable. The proposed scheme will enable affordable and sustainable access to and from all areas of the city, increasing the opportunity of individuals to access employment by low-cost transport.			Almost £500,000 per year through the replacement of car trips with cycling trips	
The proposed schemes will have a positive impact on the connectedness of the city. The improved cycle infrastructure will enable people to access services safely and reliably. There are a number of instances where schemes will seek to enhance major road crossings, for example.		Moderate positive		
Cycle routes provide safe routes for individuals to access services, for children to access schools, and traffic free routes provide a pleasant journey. Option and non-use value exists for users that have not been counted but who value the benefit that the existence of the route provides.		Moderate positive		
The unadjusted combined cost for all elements of the scheme.			£9,132,540	
The indirect tax revenue that is lost through fuel duty by the reduction in car km driver is included in the decongestion value.			£696,957 (10 year) - £1,112,935 (30 years) included in decongestion benefit	

## Appendix 4: Segmentation of potential strategic route users

Mapping of DfT Climate Change and Transport Choices segmentation model to existing MOSAIC consumer classification data for the city

DfT segment	Most comparable MOSAIC group/s
<b>Carbon reduction</b>	
<b>Segment 4: Affluent empty nesters</b>	A. Symbols of success: Career professionals living in sought after locations
	J. Grey Perspectives: Independent older people with relatively active lifestyles
<b>Segment 5: Educated suburban families</b>	B. Happy families: Younger families living in newer homes
	C. Suburban Comfort: Older families living in suburbia
<b>Segment 8: Young urbanites without cars</b>	E. Urban Intelligence: Educated, young, single people living in areas of transient populations
<b>Employment and regeneration</b>	
<b>Segment 2: Less affluent urban young families</b>	G. Municipal Dependency: Low Income Families Living in Estate Based Social Housing
	H. Blue Collar Enterprise: Upwardly Mobile Families Living in Homes Bought from Social Landlords
<b>Segment 9: Urban low income without cars</b>	D. Ties of Community: Close-knit, inner city and manufacturing town communities
	F. Welfare Borderline: People Living in Social Housing with Uncertain Employment in Deprived Areas

Sources:

*DfT Climate Change and Transport Choices segmentation model*

*Newcastle City Council MOSAIC data ([www.newcastle.gov.uk/your-council/statistics-and-census-information/mosaic-socio-economic-profiles](http://www.newcastle.gov.uk/your-council/statistics-and-census-information/mosaic-socio-economic-profiles))*