

Appraisal Summary Table

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Contact:	
Name	Highways England
Organisation	Project Manager
Role	

Name of scheme:	Trans-Pennine Upgrade PCF Stage 3
Description of scheme:	<p>The Trans-Pennine Upgrade scheme involves the following Scheme elements:</p> <ul style="list-style-type: none"> Mottram Moor Link Road - a new dual-carriageway link road from the M67 terminal roundabout to a new junction at A57(T) Mottram Moor. A57(T) to A57 Link Road - a new single carriageway link from the A57 at Mottram Moor to a new junction on the A57 at Brookfield, bypassing the existing A628/ A57 and A57 Woolley Lane/Hadfield road junctions. Westwood Roundabout Improvements - the addition of traffic signals and lane widening to address peak time traffic congestion. M67 Terminal Junction 4 Roundabout Improvements - the addition of traffic signals and carriageway widening. Technology Improvements – Installation of automated closure gates on the A628 and variable message signs to allow drivers to make informed decisions.

Impacts		Summary of key impacts	Assessment						
			Quantitative			Qualitative	Monetary	Distributional	
							£m (NPV)	7-pt scale/ vulnerable grp	
Economy	Business users & transport providers	Business users benefit significantly with the Trans-Pennine Upgrade Scheme through reduced travel time amounting to £135.1m. The vehicle operating cost amounts to a benefit to users of £16.3m. The business user benefit amounts to £151.4m. There is a disbenefit of £1.1m to the business users during construction. The overall net business benefit is £150.3m.	Value of journey time changes (£m)		£135.110	N/A	£150.3	N/A	
			Net journey time changes (£m)						
			0 to 2min	2 to 5min	> 5min				
			£16.6	£47.5	£70.9				
	Reliability impact on Business users	Journey time reliability is expected to improve significantly for business users in the vicinity of the scheme.	N/A			N/A	£8.9		
Regeneration	A regeneration assessment has not been undertaken.	N/A			N/A	N/A			
Wider Impacts	The Trans-Pennine scheme is expected to have effects in wider areas other than transport. Agglomeration effects account for close to 93% of the wider impacts as these are expected to play an important role in improving access to employment and labour.	N/A			N/A	£84.0			
Environmental	Noise	Overall, there is a reduction in noise, with a net benefit of £2.3m.	Households experiencing increased daytime noise in forecast year: 587 Households experiencing reduced daytime noise in forecast year: 263 Households experiencing increased night time noise in forecast year: 206 Households experiencing reduced night time noise in forecast year: 221			Beneficial	£2.3	N/A	
	Air Quality	Overall there is an increase in NOx emissions as a result of the scheme, which is as a result of a greater number of vehicle kilometers being driven, when the scheme is in operation. There is an overall reduction in PM10 concentrations (net score) as a result of the scheme in the opening year and forecast year. There is a reduction in NOx and PM10 between the opening and design year reflecting the improvement in vehicle emissions. Emissions for 2030 have been used for the design year as these are the latest emission factors available. As such this is likely to lead to an overprediction of emissions as beyond 2030 vehicles emissions will be cleaner with the introduction of ultra low emissions vehicles, such as electric vehicles.	Net total route assessment (opening year) for PM10 : -262 tonnes Change in NOx emissions over 60 year appraisal period: 559 tonnes			Beneficial	£0.5	N/A	
	Greenhouse gases	Carbon dioxide emissions increase as a result of the Scheme in the opening year by 3,539 tonnes.	Change in non-traded carbon over 60y (CO2e)		284,977	N/A	-£12.7		
			Change in traded carbon over 60y (CO2e)		N/A				
	Landscape	Landscape assessment has not been undertaken.	N/A			N/A	N/A		
	Townscape	Townscape assessment has not been undertaken.	N/A			N/A	N/A		
	Historic Environment	Assessment has not been undertaken.	N/A			N/A	N/A		
	Biodiversity	Assessment has not been undertaken.	N/A			N/A	N/A		
	Water Environment	Assessment has not been undertaken.	N/A			N/A	N/A		
	Social	Commuting and Other users	The benefit with the Scheme through reduced travel time amounting to £128.0m. The vehicle operating cost amounts to a dis-benefit to users of £4.9m. There is a disbenefit of £2m to the transport users during construction. The net commuting and other user benefits is £121.1m.	Value of journey time changes (£m)		£128.000	N/A	£121.1	N/A
Net journey time changes (£m)									
0 to 2min				2 to 5min	> 5min				
£14.2				£42.2	£71.6				
Reliability impact on Commuting and Other users		All time periods show an increase in journey time reliability benefits for commuting and other trips, indicating that the journey time reliability improves with scheme in place	N/A			N/A	£8.5		
Physical activity		Assessment has not been undertaken.	N/A			N/A	N/A		
Journey quality		Assessment has not been undertaken.	N/A			N/A	N/A		
Accidents		DfT's COBALT tool was used to appraise accidents. The scheme results in a reduction in the number of accidents, resulting in a net benefit of £0.2m (including construction accident benefits).	N/A			N/A	£0.2	N/A	
Security		Assessment has not been undertaken.	N/A			N/A	N/A	N/A	
Access to services		Assessment has not been undertaken.	N/A			N/A	N/A	N/A	
Affordability	Assessment has not been undertaken.	N/A			N/A	N/A	N/A		
Severance	Assessment has not been undertaken.	N/A			N/A	N/A	N/A		
Option and non-use values	Assessment has not been undertaken.	N/A			N/A	N/A			
Public Accounts	Cost to Broad Transport Budget	The Cost to Broad Transport Budget for the Trans-Pennine Upgrade scheme amounts to £155.1m.	N/A			N/A	-£155.1		
	Indirect Tax Revenues	There is an increase in Indirect tax revenue by £2.6m	N/A			N/A	£2.6		