

Initial Appraisal		Intervention 172: New Road Link between the M8 and M74						
Estimated total Public Sector Funding Requirement:		Capital Costs/grant				£500m - £1bn		
Summary Impact on Key Strategic Outcomes	Improve Journey Times and Connections Reduce Emissions Improve Quality, Accessibility and Affordability	---	--	-	0	+	++	+++
(Judgement based on available information against a 7pt. scale.)								
Intervention Description:								
New dual carriageway link road between the M74 at Junction 12 to the M8 at Junction 4.								
Summary: Rationale for Not Progressing								
This new road alignment would have a major negative environmental impact as it is a largely greenfield route, extending over 40km. In addition, the cost of the intervention, estimated at £500m to £1bn, would far outweigh any benefits generated.								

Table C172.1.1 STPR Objectives

STPR Objectives	
<p><u>STPR Objective 1:</u></p> <p>To increase public transport capacity and reduce journey time between Edinburgh and Glasgow.</p> <p><u>STPR Objective 2:</u></p> <p>To make best use of the available road space and better manage peak demand.</p> <p><u>STPR Objective 3:</u></p> <p>To increase public transport capacity and frequency between Livingston and Edinburgh.</p> <p><u>STPR Objective 4:</u></p> <p>To contribute to both a reduction in emissions per person kilometer and a reduction in overall emissions.</p> <p><u>STPR Objective 5:</u></p> <p>To promote continuing reduction in accident rates and severity rates across the strategic transport network.</p> <p><u>STPR Objective 6:</u></p> <p>To promote efficient and effective transport links to support the development and implementation of the proposed national developments at Grangemouth and Edinburgh Airport identified in the NPF2.</p>	<p><b>1: Slightly Negative</b> – This intervention would impact negatively on the competitiveness of rail journeys compared to the private car</p> <p><b>2: Slightly Positive</b> – This intervention would provide relief to congested sections of the M8 Motorway but involves new road space provision.</p> <p><b>3: Neutral</b> – This intervention is unlikely to have any impact on increasing public transport capacity and frequency between Livingston and Edinburgh.</p> <p><b>4: Slightly Negative</b> – This intervention is likely to encourage greater use of the private car on this part of the strategic road network and therefore increase the levels of emissions. These impacts are considered to outweigh any benefits associated with reductions in levels of congestion.</p> <p><b>5: Neutral</b> – This intervention would remove traffic from congested sections of the motorway network with consequential reductions in accident numbers. However it would also likely encourage greater use of the private car, thereby resulting in an increase in the total number of vehicles on the strategic road network.</p> <p><b>6: Positive</b> – The provision of a new dual carriageway link road between the M74 and M8 would help to improve access to Grangemouth from the south by allowing traffic to avoid congestion on the M74 and M80. It would also provide an alternative route for longer distance passenger and freight traffic travelling to and from the south of the country.</p>

Table C172.1.2 Key Strategic Outcomes

Key Strategic Outcomes (KSO's)		
Objective:	Assessment Summary:	Supporting Information:
Improve Journey Times and Connections:	Minor Benefit	The provision of a new dual carriageway link road between the M74 and M8 would help to improve access and journey times to Grangemouth from the south by allowing traffic to avoid congestion on the M74 and M80. It would also provide more direct connections between parts of the Central Belt and the national border.
Reduce Emissions:	Minor negative impact	This Intervention would encourage greater car use and therefore would likely have a negative impact on emissions.
Improve Quality, Accessibility and Affordability:	Minor Benefit	The provision of a new dual carriageway link road between the M74 and M8 could result in secondary benefits for bus users on the M74, A8/M8 and M80. This would potentially increase journey quality but is unlikely to affect accessibility or affordability.

Table C172.1.3 Implementability Appraisal

Implementability Appraisal	
Technical:	There are a number of technical issues associated with this intervention. This new road alignment is largely a greenfield route, extending over 40km, through areas where terrain is likely to require a significant level of engineering.
Operational:	The construction work could have adverse environmental effects during and after construction on the surrounding areas.
Public:	This intervention would likely be met with significant opposition due to the potential impacts on the cultural heritage and landscape and the likely increase in levels of emissions. The high costs associated with this intervention may also raise significant opposition.

Table C172.1.4 Comparative Appraisal

Comparative Appraisal	
Intervention Hierarchy:	The provision of a new dual carriageway link road between the M74 and M8 is classed as a Level 3 intervention as significant infrastructure changes are required to implement the intervention.
Interaction:	This intervention does not interact or complement any other interventions.
Mutually Exclusive:	This intervention is not mutually exclusive with any other intervention.

Table C172.1.5 Environmental Appraisal

Environmental Appraisal	
Assessment Summary	This intervention could affect landscape, noise, geology and soils, water quality, biodiversity and cultural heritage sites depending on the location of the new infrastructure.