

Appraisal Summary Table

Table 8.1

Option: Preferred Strategy		Description: Balanced strategy initiatives covering the study area for SWARMMS	Problems: see Ch.1 Introduction to Appraisal Report	Present Value Cost To Government £4,289M																			
OBJECTIVE	SUB-OBJECTIVE	QUALITATIVE IMPACTS	QUANTITATIVE MEASURE	ASSESSMENT																			
ENVIRONMENT	Noise	In 15th year: 33 zones 'losers'; 39 zones 'winners'. Indicates benefits and disbenefits are spread across the region.	Change in estimated population annoyed in 15th year with Strategy compared with present Do Minimum: +10934	Change in estimated population annoyed in 15th year with Strategy compared with future Do Minimum: +8524																			
	Local Air Quality	With regard to NO2, 7 of the winning zones but 1 of the losing zones have existing air quality problems (indicated by declared Air Quality Management Area status). Thus the benefit of the strategy is more than suggested by the AST scores. With regard to PM10, 7 of the winning zones and none of the losing zones have existing air quality problems (Air Quality Management Area). Thus the benefit of the strategy is more than suggested by the AST scores. LAQ includes rail and road emissions.	NO2: 65 zones 'winners' NO2: 7 zones 'losers' NO2: 0 zone no change PM10: 67 zones 'winners' PM10: 3 zones 'losers' PM10: 2 zones no change	Emissions Estimate NO2: -22,761,903 Emissions Estimate PM10: -1,544,466																			
	Greenhouse Gases	Includes both rail and road emissions.	69 zones with decrease 3 zones with increase 0 zones with no change	Reduction of 1,733,315 tonnes of CO2 per year (-9.3%)																			
	Landscape	The landscape of two nationally designated AONBs, the Cranborne Chase and West Wiltshire Downs, and Bodmin Moor will be damaged by the highway improvements. Highway schemes along the A358 and A303 in Wiltshire and Somerset would be visually intrusive and will adversely impact on the landscape. New rail stations at Grove and Devizes could also impact on the North Wessex AONB.	<table border="1"> <thead> <tr> <th>Impact of Strategy on Resource</th> <th>Slight -ve</th> <th>Moderate -ve</th> <th>Large -ve</th> </tr> </thead> <tbody> <tr> <td>National eg. AONB and National Park</td> <td>-</td> <td>4 (3 AONBs and 1 National Park)</td> <td>-</td> </tr> <tr> <td>Regional eg. Special Landscape Area and Area of Great Landscape Value</td> <td>3</td> <td>2</td> <td>-</td> </tr> <tr> <td>Local e.g. Local Plan Designations</td> <td>-</td> <td>1</td> <td>-</td> </tr> </tbody> </table>	Impact of Strategy on Resource	Slight -ve	Moderate -ve	Large -ve	National eg. AONB and National Park	-	4 (3 AONBs and 1 National Park)	-	Regional eg. Special Landscape Area and Area of Great Landscape Value	3	2	-	Local e.g. Local Plan Designations	-	1	-	Moderate Adverse (Negative) Impact			
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	Townscape	Slight adverse impact on parts of the townscape resource within the study corridor. Where a scheme would impact upon the setting of several conservation areas (e.g. A303 between Sparkford and Ilchester), it would result in a slight adverse impact. Certain elements of the strategy will have positive benefits on the townscape of villages, where new road alignments now bypass their location, for example to Chicklade.	Multiplicity of features do not lend themselves well to a matrix	Slight Adverse Impact																			
	Heritage of Historic Resources	The strategy will have a negative impact on elements of the cultural heritage resource within the study corridor. The historic landscape of the Cranborne Chase and West Wiltshire Downs, and particularly Bodmin Moor. There will potentially be direct and indirect impacts on heritage assets of county and local importance. There are positive benefits to listed buildings, where new road alignments bypass their location, e.g. A303 Chicklade to Mere.	<table border="1"> <thead> <tr> <th>Resource</th> <th>Number of Resources</th> </tr> </thead> <tbody> <tr> <td>Scheduled Ancient Monuments</td> <td>At least 15</td> </tr> <tr> <td>Listed Buildings</td> <td>Over 30</td> </tr> <tr> <td>Historic Parks and Gardens</td> <td>3 plus a number unregistered</td> </tr> <tr> <td>County and Local Archaeological Sites e.g. SMR and Local Plan Designations</td> <td>100s</td> </tr> <tr> <td>Conservation Areas</td> <td>5</td> </tr> </tbody> </table>	Resource	Number of Resources	Scheduled Ancient Monuments	At least 15	Listed Buildings	Over 30	Historic Parks and Gardens	3 plus a number unregistered	County and Local Archaeological Sites e.g. SMR and Local Plan Designations	100s	Conservation Areas	5	Moderate Negative Impact							
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Biodiversity	The strategy will have a negative impact on areas of biodiversity within the study corridor - potentially at least eight Sites of Special Scientific Importance will be adversely affected by highway schemes. In the region of 15 County Designated Biodiversity Sites will also be affected. Whilst not designated, there is an abundance of valuable hedgerows and woodland adjacent to road schemes, which would be destroyed by online improvements.	<table border="1"> <thead> <tr> <th>Impact of Strategy on Resource</th> <th>Minor -ve</th> <th>Significant -ve</th> <th>Serious -ve</th> <th>Very Serious -ve</th> </tr> </thead> <tbody> <tr> <td>National e.g. SSSI, NNR</td> <td>3 (2 SSSI's and 1 National Park)</td> <td>-</td> <td>4</td> <td>1</td> </tr> <tr> <td>Regional e.g. CWS, SINC</td> <td>2</td> <td>10</td> <td>1</td> <td>2</td> </tr> <tr> <td>Local e.g. Local Plan Designations</td> <td>3</td> <td>-</td> <td>-</td> <td>-</td> </tr> </tbody> </table>	Impact of Strategy on Resource	Minor -ve	Significant -ve	Serious -ve	Very Serious -ve	National e.g. SSSI, NNR	3 (2 SSSI's and 1 National Park)	-	4	1	Regional e.g. CWS, SINC	2	10	1	2	Local e.g. Local Plan Designations	3	-	-	-	Very Serious Adverse (Negative) Impact
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Water Environment	Overall impacts generally remain localised with, in many cases, the opportunity for mitigation. Road and rail developments following existing routes may provide opportunities for benefits (positive impacts) through the introduction of, for example, modern drainage practices. Movement of freight from road to rail may reduce pollution potential from accidental spillage.		Insignificant Impact																				
Physical Fitness	Aims to reduce growth of traffic and substantially improve public transport services which could either increase or decrease physical fitness depending on the activities which are substituted for car travel and replaced by public transport usage. If cycling, walking or other physical activity increases this could be positive but the effect of the strategy remains unclear.		Uncertain Impact																				
Journey Ambience	Some benefits to journey ambience in terms of improving integration and local schemes. Greater improvements to public transport will improve 'Traveller Care'. The new roads (assuming well-designed) and traffic management will also reduce traveller stress.		Large Beneficial Impact																				
SAFETY	Accidents	Significant accident savings associated with reduced highway demand and new safer highway infrastructure.	Savings: Fatal 140 Serious 851 Slight 3344	PVB £150M																			
	Security	The provision of help points, lighting and CCTV at unstaffed interchanges will help to improve personal security. Easing of traffic congestion at key points in the study area as a result of the strategy will reduce the fear of crime and the vulnerability of car users.		Moderate Beneficial Impact																			
ECONOMY	Transport Economic Efficiency	Excludes income arising from fiscal traffic restraint measures.		User Benefits: NPV £10,110M Private Providers: NPV nil Public Providers: NPV -£1,607M Other Government: NPV -£4,957M																			
	Reliability	Improvements to the strategic highway network, demand management proposals, measures to encourage a mode shift from car to public transport and social changes would enhance capacity and restrict demand, thus improving journey time reliability. Proposals for new rail services and stations matched by increase in track/signalling capacity to enable more robust rail operations.		Moderate Beneficial Impact																			
	Wider Economic Impacts	The strategy enhances the strategic rail and road links between the regeneration zones within the study area (Cornwall and parts of Devon) and the rest of the country, which assists with overcoming peripherality.		Positive Impact																			
ACCESSIBILITY	Access to the Transport System	Major effects associated with introduction of demand responsive public transport feeder services and new stations.	Do Min Access Index: 71 Strategy Access Index: 81	Moderate Beneficial Impact																			
	Option Values	New rail stations provide strong beneficial effects at the local level for each station, and combined will provide overall study area wide opportunities, similarly for re-instatement of passenger rail services.		Moderate Beneficial Impact																			
	Severance	Provides direct relief from existing severance for around 950 people. Other places will experience increases in severance as a result of road upgrade to dual carriageway standard. However, these impacts are considered to be slight given that they pass through rural areas and pedestrian movement is likely to be low.		Moderate Beneficial Impact																			
INTEGRATION	Transport Interchange	The upgrading of existing interchanges, provision of new interchanges improved information for all travellers and coach network upgrades will provide a beneficial impact to all interchanges in the study area. Similarly for freight facilities.		Positive																			
	Land-Use Policy	Performs well against national and regional guidance, as well as LTPs and Structure Plans.		Positive																			
	Other Government Policies	Consistent with policies relating to competitiveness, tourism and access to employment opportunity. Reducing travel demand and modal shift to public transport & slower modes has positive implications for the protection of agricultural assets, air quality, and neighbourhood renewal.		Positive																			