

Assessment of H.4.4 Summary of Key Actions Improving Road Safety and Health

Plan Option/ Measure	H.4.4 Summary of Key Actions Improving Road Safety and Health			Worksheet completed by:	WSP Environmental	
SEA Headline Criteria	Performance against SEA Criteria	Description of the value and vulnerability of the area likely to be affected	Description of the magnitude of the effect including timing, duration, & potential cumulative effects	Level of certainty (H/M/L), and assumptions	Mitigation measure(s) proposed	Significance of the residual effect (ie after mitigation)
<p>Air Quality To develop the transport network to maximise access whilst minimising detrimental impacts on air quality.</p> <ul style="list-style-type: none"> - To reduce congestion in Newport - To limit traffic growth. - To increase travel choice and the proportion of people using public transport, cycling and walking - To reduce number of car trips - To improve air quality <p>Overall significance after mitigation: Slight positive</p>	Is not likely to affect congestion in Newport	<p>Congestion currently experienced within Newport at peak times</p> <p>The LDF growth scenarios for the Island are likely to result in population growth and therefore could result in traffic growth.</p>	<p>Reversible effects – air quality could worsen in the future due to population increase, change in policy, change in ferry activity etc.</p> <p>Effects on air quality likely to be slight.</p>	Moderate	Link to more detailed measures to reduce congestion under the 'Tackling Congestion' objective within the Five Year Strategy	No effect
	Is not likely to affect traffic growth	Currently no AQMA on the Island but Environmental Health Department advise that air quality thresholds could be exceeded in the future if major development takes place on the Island increasing population and if ferry sizes and/or activity increases.				No effect
	Is likely to increase travel choice by increasing safety for pedestrian, cyclists and user of public transport therefore making these methods more attractive					Slight positive
	Has the potential to reduce car trips by making public transport, cycling and walking more attractive					Slight positive
	Has the potential to improve air quality through reducing car trips (as above)					Slight positive
<p>Soil and geology To ensure the transport network does not adversely impact upon geology and soils, and which reduces the risk of erosion and instability due to human activity.</p> <ul style="list-style-type: none"> - To reduce the risk to property and people from erosion and instability - Avoid damage to the coastline or the loss of amenity as a result of human activity. - To avoid contamination of land - To protect areas important for geological processes <p>Overall significance after mitigation: No effect</p>	Potential to affect the risk to property and people from erosion and instability	Areas of instability on the Island particularly on parts of the coast.	Large geographical extent of potentially affected areas. Permanent effects, although most of the possible solutions have limited land take or infrastructure development	Low – locations and nature of highways works unknown. Very difficult to assess effects as there is potential conflict between all types of development and instability on the Island/natural processes and integration of factors needs to be sought.	Ensure that the initiatives do not put property or people at risk from instability and erosion. Ensure that transport schemes are in accordance with shoreline management plans. All developments need to be considered on a case by case basis?	No effect
	Potential to cause damage to the coastline through highways works	Transport infrastructure and activity along the coastline includes ferry activity, ports including landing and storage areas, transport of goods by boat, sailing, roads, piers, jetties, and car parks. Most parts of the Island are not far from the coast. Parts of the coastline are defended to protect people and property but this can be in conflict with nature conservation because some habitats and species depend on natural coastal processes.	Large geographical extent of potentially affected areas. Permanent effects to coastline.	Low – locations and nature of highways works unknown	Ensure that the initiatives do not damage the coastline or amenity at the coast through transport developments. Ensure that transport schemes are in accordance with shoreline management plans.	No effect
	Potential to result in contamination of land through highways works to improve condition of roads, although these works are likely to be minimal in extent.	Parts of the Island likely to be affected by land contamination due to past activity, transport related particularly where fuel is stored, where vehicles are washed down and from surface water run-off from roads and car parks. There are a number of groundwater protection zones on the Island.	Permanent effects of contamination of land, although most of the possible solutions have limited land take or infrastructure development. Effects likely to be slight due to probability that highways works will be minimal in extent.	Low – locations and nature of highways works unknown	Ensure highways works do not increase surface run-off and avoid contamination of water courses and groundwater. Make use of sustainable urban drainage systems. These considerations should be included within the chapter on Improving Air Quality and the Environment	No effect
	Potential to affect areas important for geological processes through highways works on road condition, although these works are likely to be minimal in extent.	A number of sites across the Island are important for geology. However, it is assumed that the measures proposed to tackle congestion will predominantly occur in town centres (with the possible exception of proposals to extend walking and cycling routes). The areas important for geology and geomorphology on the Island mainly occur on the coast and at quarries. The exception is Sandown and Shanklin where a RIGG is located on the beach, at the boundary of the defined town centre.	Permanent effects on geological processes although effects are likely to be slight due to probability that highways works will be minimal in extent.	Low – locations and nature of highways works unknown	Ensure that any highways works do not damage sites important for geology or inhibit geological processes. Add these considerations to the chapter on Improving Air Quality and the Environment.	No effect

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		Geological processes occur particularly at the coast.				
<p>Water To maintain and improve the quality of the Island's watercourses, groundwater systems and to prevent an increase in risk from flooding.</p> <ul style="list-style-type: none"> - To ensure that highways works do not give rise to increases in surface run-off. - To protect the quality of water by controlling transport related development likely to adversely affect groundwater, surface water, bathing water, and estuaries quality. <p>Overall significance after mitigation: No effect</p>	<p>Potential for highways works to affect surface run-off through improvements to road condition during construction and operation, although highways work likely to be minimal in extent.</p>	Watercourses and groundwater particularly vulnerable to surface water run-off from roads and car parks.	Reversible effects	Low – locations and nature of highways works unknown	Ensure highways works do not increase surface run-off and make use of sustainable urban drainage systems. Add these considerations to the chapter on Improving Air Quality and the Environment	No effect
	<p>Potential for highways works to cause pollution to watercourses and groundwater etc through surface water run-off during construction and operation, although highways work likely to be minimal in extent.</p>	Watercourses, groundwater, bathing water and surface water vulnerable to pollution from transport such as via surface water run-off from roads and car parks, from ferry and other boat activity and development adjacent to watercourses, the coast and estuaries such as bridges, port developments, roads etc. Several groundwater protection zones on the Island mainly in southern half of Island.	<p>Permanent effects of pollution.</p> <p>Timing – temporary pollution due to construction (e.g. siltation of watercourse). Continuous pollution possible when schemes complete.</p>	Low – locations and nature of highways works unknown	Ensure highways works do not increase surface run-off and avoid contamination of water courses and groundwater. Make use of sustainable urban drainage systems. Add these considerations to the chapter on Improving Air Quality and the Environment	No effect
<p>Landscape and townscape To protect and enhance the Island's landscape and settlement character.</p> <ul style="list-style-type: none"> - To protect the landscape and settlement character of the Island and ensure that transport and its associated infrastructure does not negatively impact on the existing character of the area. - Positively enhance landscape and settlement character. - Conserve and enhance the AONB in line with its designated status, purpose and the AONB Management Plan. - Conserve and enhance the Tennyson and Hamstead Heritage Coasts in line with their status, purpose and AONB management plan. <p>Overall significance after mitigation: Slight positive</p>	<p>Likely to protect landscape and settlement character.</p> <p>Potential to enhance landscape and settlement character through improved street lighting, introducing home zones and 20mph zones.</p>	<p>Conservation areas across the Island</p> <p>AONB and Heritage Coasts important for landscape value.</p>	Permanent effects on townscape/streetscape through physical changes e.g. new paths, home zones, and reversible effects on landscape character due to reduced traffic speeds.	Moderate	Ensure that any works consider landscape and townscape impacts such as when considering signage etc	Slight positive
	<p>Likely to conserve the AONB.</p> <p>Likely to conserve the Heritage Coasts.</p> <p>Potential to enhance the AONB and Heritage Coasts through speed control in places where it is a recurring issue, particularly with respect to powered two-wheeled vehicles (born again bikers)</p>	AONB covers almost half of the Island and Tennyson and Hamstead Heritage coasts on north and south coasts.	Reversible – speed control measures could be reversed	Moderate – speeding is an issue on roads within some parts of the AONB and the Heritage Coasts (e.g. Military Road)	None	Slight positive
<p>Biodiversity, fauna and flora To conserve and enhance the Islands biodiversity, fauna and flora.</p> <ul style="list-style-type: none"> - To avoid net loss (direct and indirect), damage to, or fragmentation of designated wildlife sites and the qualifying habitats and species on which they depend (Marine, estuarine, terrestrial and freshwater). - To maintain biodiversity and the variety of habitats on the Island <p>Overall significance after mitigation:</p>	<p>Improving road condition and skid resistance could potentially impact adversely on designated wildlife sites through ground excavation works and associated workings such as construction compounds</p>	The Island contains a wealth of designated sites for nature conservation.	Potentially permanent and cumulative effects to sites depending on highways works proposed.	Low – do not know locations of highways works	Ensure that designated sites are not adversely affected by highways works such as destruction, fragmentation of sites or through pollution such as surface run-off from roads during works. Ensure that the Ecology Officer is consulted on transport schemes to reduce impacts on designated sites.	No effect
	<p>Improving road condition and skid resistance could potentially impact adversely on biodiversity through ground excavation works and associated workings such as</p>	The Island contains a variety of BAP priority habitats and species.	Potentially permanent and cumulative effects to habitats and species depending on highways works proposed.	Low – do not know locations of highways works	Ensure appropriate mitigation measures are put in place to avoid habitat destruction and fragmentation, species loss or	No effect

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No effect	construction compounds –particular risk to hedgerows and habitats beside roads.				damage to habitats through pollution such as resulting from surface run-off from roads during works. Ensure that the Ecology Officer is consulted on transport schemes to reduce impacts on priority BAP habitats.	
Archaeology and cultural heritage To protect the Islands historic environment and cultural resource - To protect the fabric and setting of designated and non-designated archaeological sites, monuments, historic parks and gardens, maritime heritage and listed buildings locally important historic buildings and conservation areas Overall significance after mitigation: No effect	Improving road condition and skid resistance could potentially impact adversely on archaeology and cultural heritage through ground excavation works and associated workings such as construction compounds etc	There are numerous archaeological sites, historic parks and gardens, conservation areas, listed buildings and other important heritage buildings etc across the Island.	Permanent effects Potential cumulative effects on heritage sites due to widespread highways works (if proposed)	Low – do not know nature of works proposed or location.	Where this will not impact on road safety ensure that road repair and skid resistance do not impact on cultural heritage through ground excavation or construction compounds, or through the colour of the road surface.	No effect
Climatic factors To reduce the Islands contribution to climate change and to limit transport development at risk from flooding and the effects of climate change - To reduce the amount of greenhouse gas emissions on the Island - To increase the amount of renewable fuels / technology used to power vehicles - To limit development at risk from flooding and the effects of climate change Overall significance after mitigation: No effect	Not likely to significantly affect the amount of traffic on Island roads therefore not likely to affect greenhouse gas emissions from vehicles	Global issue	No effect	Moderate	None	No effect
	Not likely to significantly affect renewable fuels / technologies used to power vehicles	Emissions from motorised vehicles can cause local air quality problems which can affect people's health – particularly vulnerable are the young and old. No AQMA on the Island at present	No effect	Moderate – assume technology to power cars will continue as present without market intervention or incentives.	Highlight link between poor local air quality which is affected by emissions of air pollution from vehicles and health problems in vulnerable people. Can refer to measures proposed to tackle congestion and reduce traffic growth elsewhere in the LTP2 as means to improve local air quality.	No effect
	Not likely to limit development at risk from flooding and the effects of climate change	Flooding is an issue in some parts of the Island, particularly in Newport and Cowes and at some inland locations and others along the coast.	No effect	Moderate	None	No effect
Human health and safety To protect and improve the safety and health of the population. - To make the Island's roads safer and reduce accidents - To increase opportunities for walking and cycling Overall significance after mitigation: Moderate Positive	Is likely to make the Island's road safer and reduce accidents	Powered two-wheeler and car casualties are substantially higher than for the whole of England. The Island has an aging population and as a result injuries to older drivers are more than in the whole of Great Britain. Severity rate is worse on Island than whole of Great Britain and highway maintenance trends on recent years identified increasing number of crash locations where low skidding resistance may have been a contributory factor.	Permanent effects of introducing CCTV, design measures, improving road condition, street lighting etc. Speed reduction measures could be reversed.	Moderate	None	Major positive
	Is likely to increase opportunities for walking and cycling through improving safety and encouraging walking and cycling through school and workplace travel plans	-	Reversible – access could be restricted in the future, travel plans may change etc.	Moderate – although do not know exactly how these actions will be implemented i.e. will all schools have travel plans and how will active travel and cycling be encouraged?	Include more details within actions / LTP2 regarding measures to improve safety on paths and programme of schools and workplace travel plans	Moderate positive
Noise and Vibration To limit the risk of adverse noise and vibration effects and protect tranquil areas. - To limit / reduce the risk of the	Not likely to affect risk of adverse noise and vibration at ferry ports	Complaints regarding noise in the past at Fishbourne ferry port. Noise and vibration could affect residential areas near ferry ports. Adverse noise impacts can be linked to health	No effect	Moderate	Include measures to reduce noise such as low noise surfaces etc within the actions to increase personal health and safety. Work	No effect

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<p>adverse noise and vibration effects of vehicle movements at the ferry ports</p> <ul style="list-style-type: none"> - To limit / reduce the risk of the adverse noise and vibration effects of transport movement in the urban centres - To protect tranquil areas on the Island and avoid risk to them from light and noise pollution due to increases in traffic <p>Overall significance after mitigation: Slight positive</p>		impacts.			to divert heavy goods vehicles away from sensitive residential areas.	
	Not likely to affect the risk of adverse noise and vibration effects of transport movement in urban centres	Increases in noise in town centres could affect sensitive receptors such as hospital, schools and residential areas adjacent to roads.	No effect	Moderate	Include measures to reduce noise such as low noise surfaces etc within the actions to increase personal health and safety	Slight positive – with mitigation
	Not likely to affect noise levels within tranquil areas. Increasing safety through improving street lighting may affect light levels within rural areas, therefore decreasing sense of 'wilderness'.	'Tranquil areas' not defined on the Island although can be assumed these are within the AONB and along Heritage Coast. Night time skies and levels of noise, particularly from traffic threaten the tranquillity of rural areas.	Reversible effects – noise levels could increase or decrease in the future due to changes in technology, policy changes etc.	Low – do not know locations of street lighting improvements or likelihood that improvements will affect rural areas either because they are within rural areas or on the boundary.	Ensure that new lighting reduces over-spill and protects night skies.	No effect
<p>Population To improve accessibility for all sectors of the community, and minimise severance by sea.</p> <ul style="list-style-type: none"> - To minimise the impact of severance by sea - To ensure transport is accessible for all sectors of the community regardless of age, income and mobility - To improve access to services and facilities (e.g. retail, education, employment, health, leisure, sporting, cultural etc) - To increase access to the countryside <p>Overall significance after mitigation: Slight positive</p>	Is not likely to affect severance by sea.	Severance by sea mainly a result of cost of ferries. Affects most people on the Island and those wishing to visit from the mainland.	No effect.	Moderate	Consider assisted travel costs for trips to mainland to access medical facilities	No effect – low certainty that mitigation can be put in place?
	Likely to improve access to transport through increasing safety and sense of security for transport users - CCTV coverage and improving street lighting	Despite a relatively low crime rate, the fear of crime on Island is reported to be higher than recorded crimes. Perception of safety may be a consideration when Islanders make transport choices.	Reversible effects – perception of crime can change. Perception of safety is important with regard to access.	Moderate	None	Slight positive
	Is likely to increase access to services and facilities through the promotion of walking and cycling, through education and training of older drivers, through increasing safety in the public realm.	Despite a relatively low crime rate, the fear of crime on Island is reported to be higher than recorded crimes. An improved perception of safety particularly in the public realm may increase accessibility, particularly for vulnerable people such as the elderly.	Reversible effects – physical access can change, perception of safety can change. Perception of safety is important with regard to access	Moderate	None	Slight positive
	Not likely to increase access to the countryside	The Isle of Wight Council has achieved 100% rights of way opened and signed.	No effect	Moderate	Where possible include measures to increase safety on footpaths and cycleways in rural areas. If lighting is installed ensure this limits spill and therefore limits affect on night skies.	Slight positive
<p>Material assets To improve and maintain the physical quality of the Island's transport infrastructure network</p> <ul style="list-style-type: none"> - To ensure the use of recycled materials for road repair and construction. - To improve the physical quality of the island's transport infrastructure network through appropriate investment <p>Overall significance after mitigation: Slight positive</p>	Potential to make use of recycled materials	Road repair included within the list of actions is likely to require large amounts of natural resources e.g. aggregate / crushed rock which are non-renewable materials.	Permanent effects of use of resources	Moderate	Potential could be mentioned within the chapter with respect to repair but emphasis should be placed on this under objective 4, 'Improving Air Quality and the Environment'. Set target for the use of recycled materials within road repair schemes.	Slight positive
	Will improve the physical quality of the Island's transport infrastructure through improving road condition on most Island roads and skid resistance at key locations.	Highways infrastructure on Island in need of significant investment to improve condition	Long term effects depending on wear and tear. Improvements should take place on all Island roads. Potential secondary impacts on access, noise and vibration, biodiversity, soil and geology and air quality associated with the importation and transportation of the necessary materials for road repair.	Moderate although specific locations of highways works not stated.	State where significant works on road condition will occur within LTP2. Link with a target for the use of recycled materials. Discuss the logistics and potential impacts of the transportation of materials and disruption to the road network during the engineering works. Prepare and adopt a management plan to avoid/minimise environmental impacts through the sourcing and transportation of materials and the engineering works.	Slight positive

Notes

This Worksheet has been adapted from the worksheet template suggested in TAG guidance on SEA of LTPs. It has been amended to reflect the specifics of the SEA of the proposed Isle of Wight LTP2 SEA. The worksheet has been developed to provide a useful mechanism for assessing and recording the environmental effects of different options for measures/actions in the LTP2 and has therefore been structured to allow recording of effects against all SEA criteria on one worksheet. Separate worksheets have been completed for each alternative measure/option.

To aid consistency of appraisals and ease of comparison of alternatives, standardised scales of impact magnitude and impact significance have been used. These are based on the following:

Major negative – moderate negative – slight negative – no effect – slight positive – moderate positive – major positive