

Assessment of I.6.1 Summary of Key Actions Improving Air Quality and the Environment

Plan Option/ Measure	I.6.1 Summary of Key Actions Improving Air Quality and the Environment			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 (i.e. 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 score after mitigation; Slight positive</p>	<p>Will reduce congestion through improving traffic flows at key locations (Coppins Bridge), making public transport, walking and cycling more attractive and developing workplace and school travel plans. As part of construction works night working will be considered to reduce congestion.</p>	<p>Congestion currently experienced within Newport at peak times</p> <p>The emerging LDF growth options for the Island are likely to result in population growth and therefore could result in traffic growth.</p>	<p>Not enough detail regarding number of measures or locations to make a judgement regarding magnitude. Key benefits of measures will be experienced at peak times. Potential for positive cumulative effects on air quality.</p>	<p>Low – little detail regarding actual measures, timing, location etc</p>	<p>Link to more detailed measures to reduce congestion under that objective within the Five Year Strategy.</p> <p>Ensure as many measures as possible are put in place, ensuring the most effective action to improve air quality.</p> <p>Ensure any night working does not have adverse light or noise effects.</p>	Slight positive		
	<p>Will limit traffic growth through encouraging modal shift, making public transport, walking and cycling more attractive, and reducing the number of journeys.</p>	<p>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.</p>	<p>Alleviating congestion through improving traffic flows reduces concentrating emissions in slow moving traffic, which can cause problems with roadside local air quality.</p>			Slight positive		
	<p>Will increase travel choice by making public transport, walking and cycling more attractive and developing workplace and school travel plans improving walking and cycling routes, working with travel operators to put in place funding options that will help make travelling by public transport, bus and rail cheaper.</p>		<p>In addition, increased use of public transport has the potential to achieve modal shift and also reduce levels of roadside local air pollution in urban areas by reducing the number of trips by car.</p>			Moderate positive		
	<p>Reduces the number of car trips by encouraging modal shift (travel plans, making walking, cycling) and making public transport more attractive.</p>		<p>Potential for positive cumulative effects on air quality through the combination of measures proposed.</p>			Moderate positive		
	<p>Improves air quality by improving traffic management to tackle congestion, by encouraging more people to use public transport, ensuring that design and location of new buildings and spaces helps reduce air pollution, monitoring and evaluating the need for air quality management areas, and monitoring the oil depot on the Island.</p>					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 score after mitigation: No effect</p>	<p>Actions are not likely to affect the risk of people and property from erosion and instability.</p>	<p>Areas of instability on the Island particularly on parts of the coast.</p>	<p>No effect likely</p>	<p>Moderate</p>	<p>Ensure that the actions include ensuring that traffic does not increase on coastal roads and that any transport development does not put property or people at risk from instability and erosion. Ensure transport works are in line with the Shoreline management plan.</p>	No effect		
	<p>Actions are not likely to affect the coastline or amenity.</p>	<p>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.</p>	<p>No effect likely</p>			<p>Moderate</p>	<p>Ensure that the actions include avoiding an increase of traffic on coastal roads and ensuring that any transport engineering works are in line with Shoreline Management Plans and does not damage the coastline such as through development at ports (e.g. new facilities, car parks etc)</p>	No effect
	<p>Actions are not likely to give rise to the contamination of land.</p>	<p>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.</p>	<p>No effect likely</p>			<p>Moderate</p>	<p>Ensure that actions including not giving rise to contamination of land from fuel storage, vehicle wash down areas and surface run-off.</p>	No effect

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	Actions are not likely to give rise to damage to areas important for geology or to inhibit geological processes because no significant development is proposed other than the promotion of footpaths and cycleways.	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). Geological processes occur particularly at the coast.		Moderate	Ensure that the actions include that any transport development does not damage sites important for geology or inhibit geological processes.	no effect
Water To maintain and improve the quality of the Island's watercourses, groundwater systems and to prevent an increase in risk from flooding. - 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. Overall score after mitigation: No effect	No specific actions are likely to give rise to an increase in surface water run-off.	Watercourses and groundwater particularly vulnerable to surface water run-off from roads and car parks.	No effect	Moderate	Ensure actions include ensuring that any new transport development does not increase surface run-off and uses sustainable urban drainage systems.	No effect
	Actions are not likely to affect water quality.	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.	No effect	Moderate	Ensure actions include ensuring that any transport developments do not give rise to contamination of water courses or groundwater due to construction works or during operation.	No effect
Landscape and townscape To protect and enhance the Island's landscape and settlement character. - 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. Overall score after mitigation: Slight positive	The measures to tackle congestion and reduce traffic are likely to protect landscape and townscape by alleviating congestion in urban areas, by reducing numbers of journeys across the Island and reducing traffic across the Island. No major transport engineering works are proposed. The actions aiming to tackle congestion are likely to enhance landscape and townscape character by alleviating congestion in urban areas, by reducing numbers of journeys across the Island and reducing traffic across the Island. Also, ensuring that trees and hedges are replaced and maintained as part of highways works (using appropriate native species) will enhance the landscape. Will conserve and enhance the AONB through working with AONB office to ensure that schemes and proposals have due regard to the AONB – plus will decrease traffic levels, and reduce the number of journeys across the Island. Will conserve and enhance the Heritage Coasts through working with the AONB office to ensure that schemes and proposals have due regard to the AONB and Heritage Coasts – plus will decrease traffic levels, and reduce the number of journeys across the Island.	Conservation areas across the Island AONB and Heritage Coasts important for landscape value.	Permanent effects on townscape and landscape through physical changes from e.g. new paths, replacing trees and hedges. Reversible effects from reducing journeys across Island.	Moderate – assume alleviating congestion in urban areas will not increase traffic in more rural areas.	Ensure traffic management measures divert traffic away from conservation areas, rural areas and the AONB and Heritage Coasts. Ensure that junction improvements such as at Coppins Bridge are not visually intrusive and signage is carefully considered with respect to effects on townscape.	Slight positive Slight positive

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Biodiversity, fauna and flora To conserve and enhance the Islands biodiversity, fauna and flora. - 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 Overall score after mitigation: Slight positive	No development proposed as a part of these actions therefore no direct risk posed to designated sites.	The Island contains a wealth of designated sites for nature conservation.	-	Moderate	Ensure that list of actions includes not adversely affecting designated sites through transport development, planning or pollution such as surface run-off from roads.	No effect
	No development proposed as a part of these actions therefore no direct risk posed to BAP priority habitats. Actions include ensuring that trees and hedges are replaced and maintained as part of highways works (using appropriate native species)	The Island contains a variety of BAP priority habitats.	Reversible - if transport engineering works are proposed in future, or air pollution were to increase.	Moderate – assume that planting trees and hedges will support BAP priority habitats and species as well as benefiting the wider countryside.	Ensure that list of actions includes ensuring that priority BAP habitats are not adversely affected by transport development or pollution such as surface run-off from roads.	Slight positive – helps maintain biodiversity
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 score after mitigation: No effect	Promotion of the use of cycleways and footways may pose a risk to the fabric and setting of some heritage sites depending on their location. In general tackling congestion should have a positive effect on conservation areas. The actions also including working with English Heritage and others to ensure that schemes and proposals mitigate and possible effects on the built environment	There are numerous archaeological sites, historic parks and gardens, conservation areas, listed buildings and other important heritage buildings etc across the Island.	Cumulative impact of more movement around Island as a result of improving traffic flows, increasing access via walking and cycling, extending footpaths and cycleways? Potential permanent effects on heritage sites through increased use of cycleways and foot paths in some areas.	Moderate – no development proposed as part of these actions.	Ensure the setting and fabric of historic sites is not negatively affected by new transport development such as the extension of footpaths etc. Where possible ensure traffic is diverted away from conservation areas. Amend the actions to cover not just the built environment but archaeological remains / sites. Also work with Council Conservation Officer as well as English Heritage.	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 score after mitigation: Slight positive	Will reduce the amount of greenhouse gas emissions on the Island through encouraging modal shift	-	Not enough detail regarding scale of measures and how this would manifest in limits or reductions of greenhouse gas emissions. Potential for positive cumulative effects?	Low – little detail regarding actual measures etc	Ensure work with town planning to locate new development to minimise the need to travel. Ensure maximising measures to increase modal split and encourage walking and cycling.	Slight positive
	Will work towards increasing the amount of renewable fuels / technology used to power vehicles by supporting more environmentally and encouraging the use of alternative fuels such as LPG, electric power, biomass etc. and will work with hospitals and others to actively pursue the purchase of vehicles powered fuels such as LPG, low sulphur diesel, electric vehicles, bikes and electric bikes and powered two-wheeled vehicles etc	Traffic is predicted to grow on the Island. Target is to limit growth to 3% per annum. Traffic growth will bring growth in emissions of greenhouse gases unless fuels change.	Reversible effects – using renewable fuels and electric bikes etc are largely dependant on individual choice or corporate policy – could change.	Low – action is to support and encourage but not specific initiatives proposed.	Look to put in place an initiative. Can a specific 'fleet' or organisation be named which the council is working with?	Slight positive
	No major development proposed in these actions and none will help 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.	-	High	Change actions to include avoiding inappropriate transport works within areas at risk from flooding and the effects of climate change and avoiding increasing surface water run-off. Chapter should specifically mention the challenge of adapting to climate change.	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	Does not specifically address road safety.	Powered two-wheeler and car casualties are substantially higher on Island than for the whole of England. I The Island has an aging population and as a result injuries to older drivers are more than in the whole of Great	No effect	Moderate – no measures to help improve safety of Island's road, measures to help improve condition (although covered elsewhere in the Five Year Strategy)	Ensure measures put in place to improve the safety of the Island's roads (included elsewhere within the Five Year Strategy)	No effect

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<ul style="list-style-type: none"> - To increase opportunities for walking and cycling <p>Overall score after mitigation: Slight positive</p>		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.					
	Will increase opportunities for walking and cycling through signing promotion and management of foot and cycle ways (ROWIP) and working with town planning to ensure new development is accessibility by all modes.	-	Not enough information regarding specific measures to make a judgement regarding magnitude. Accessibility could be reversible, i.e. unforeseen diversions / closures paths.	Moderate – although location and extent of improvements unknown.	Ensure improvements to existing footpaths and cycleways which maximise access and use. Ensure paths are safe and facilities such as cycle parking are provided in appropriate locations.	Slight positive	
<p>Noise and Vibration To limit the risk of adverse noise and vibration effects and protect tranquil areas.</p> <ul style="list-style-type: none"> - To limit / reduce the risk of the adverse noise and vibration effects of vehicle movements at the ferry ports - 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 score after mitigation: Slight positive</p>	Potential to reduce travelling and therefore potential to reduce noise and vibration from transport at ports.	Exact locations of sensitive receptors (e.g. schools, hospitals, residential areas close to roads).and their vulnerability to transport noise and vibration in town centres unknown	Potential cumulative positive effect of reducing traffic on the Island.	Low – assume that decreasing congestion will not increase traffic speeds significantly to affect noise levels from roads across the Island. Potential to decrease traffic in rural and therefore more tranquil areas not known.	Ensure that traffic is not directed unnecessarily through the AONB or Heritage Coasts.	Slight positive	
	Potential to reduce travelling and therefore potential to reduce noise and vibration from transport in urban areas. In addition ensuring that design and location of new buildings and spaces helps reduce noise pollution, using noise reducing surfaces and by reducing noise as part of construction and considering noise in routes and diversion as part of the maintenance process. However, night working will be considered in order to avoid congestion, which might cause adverse noise and vibration affects.	Tranquil areas likely to be located within the AONB and Heritage Coasts and will therefore be more vulnerable to impacts from noise and vibration from transport.				Ensure night working in sensitive areas, e.g. residential is only used where this will help lead to a reduction in pollution and congestion.	Slight positive
	Potential to decrease traffic on the Island which should benefit tranquil areas. Also, by ensuring that design and location of new buildings and spaces helps reduce noise pollution.						Slight positive
<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 score after mitigation: Slight positive</p>	Will help minimise impact of severance by sea by working with Solent Transport partners to improve cross Solent and cross boundary travel and working with neighbours to consider wider transport issues. Links to and from mainland.	Severance by sea mainly a result of cost of ferries. Affects most people on the Island and those wishing to visit from the mainland	Effects would be reversible - mainly due to policy, operators etc	Low – little information about likelihood of improvements to costs and links. Little info about what improvements could be achieved	Uncertain mitigation	Slight positive	
	Will ensure transport is accessible to all by increasing travel choice, reducing travel costs where possible, making public transport more attractive, and making walking and cycling safer	-	Not enough information regarding specific measures to make a judgement regarding magnitude. Reversible – effect related to policy which can be changed, and choices and perceptions which can change		Low – uncertainty regarding which measures will be put in place and which will not.	Ensure all measures are put in place to improve access to public transport.	Slight positive
	Will improve access to services by reducing congestion, and increasing travel choice.	-	Not enough information regarding specific measures to make a judgement regarding magnitude although should benefit most people on the Island. Reversible – effect related to policy which can be changed, market forces (retail and choices and perceptions which can change		Low – uncertainty regarding which measures will be put in place and which will not.	Ensure all measures are put in place to improve access to services.	Slight positive
	Should increase access to the countryside by improving and signing foot and cycle paths.	The Isle of Wight Council has achieved 100% rights of way opened and signed.	Not enough information regarding specific measures to make a judgement regarding magnitude. Reversible effects – physical access can change.		Moderate – although location and extent of improvements unknown.	Maximise improvements to existing footpaths and cycleways which connect urban areas where people live to the countryside	Slight positive

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Material assets To improve and maintain the physical quality of the Island's transport infrastructure network - 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 Overall score after mitigation: no effect	No effect – actions do not include any proposals to include recycled materials within any developments.	-	No effect	Low – uncertain potential to use recycled materials	Maximise the use of recycled materials in the highways works. Adopt target in LTP2 to use recycled materials in transport development.	No effect
	Will not specifically improve the physical quality of transport infrastructure	Highways infrastructure on Island in need of significant investment to improve condition	No effect	Moderate – developments not made explicit in actions.	Maximise improvements to transport infrastructure	No effect

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