Transport Impact Mitigation Study

LOCAL DEVELOPMENT FRAMEWORK

March 2010

Cleaner, Safer, More Prosperous

Havant BOROUGH COUNCIL

Havant Transport Impact Mitigation Study – January 2010

1.0 Introduction

1.1 This mitigation study follows on from the Peter Brett Associates (PBA) study -Assessing the Impact of the Harbour Authorities LDF Proposals on the Strategic Highway network (August 2009), commonly known as the PBA study. The PBA study modelled the highway impacts of the housing, employment and retail development proposed in Havant borough, together with Fareham Borough Council, Gosport Borough Council and Portsmouth City Council areas up to 2026 on the main junctions of the Strategic Road Network (SRN) identified in Appendix 1.

1.2 This study considers how the traffic impacts of the proposed development that were identified in the PBA study will be mitigated up to 2026 and beyond. The study aims to meet the requirements of the Department for Transport (DfT) Circular 02/2007, (Para 33) to show what demand management techniques can be put in place in Havant to minimise traffic generated by the proposed development. The study focuses only on the SRN junctions within Havant borough, although the mitigation measures being proposed will benefit the whole transport system of the borough. There are five SRN junctions within the borough. The PBA study modelled four of the five, together with the A3(M) junction at Dell Piece, Horndean that is just outside the borough boundary. The Warblington junction on the A27 was not modelled in the original PBA study as the advice from the Hampshire County Council Highway Authority and the Highways Agency was that the junction has existing capacity and is not projected to be approaching capacity up to 2026. Havant Borough Council has subsequently commissioned PBA to model the highway capacity at Warblington Junction and this confirms the original advice that the junction has sufficient capacity.

1.3 Although the study only deals with the SRN, the state of these junctions are indicative of the state of the local road network that feeds into and is fed from the SRN. It is therefore appropriate for this Core Strategy level of study to focus on the SRN, the local road network will be considered at the Development Delivery (Allocations) Development Plan Document and through specific planning applications.

2.0 Conclusions of the PBA Study

2.1 The study outputs for the Strategic Road Network junctions within Havant borough are shown graphically within the PBA study at Appendix E -Junction Result Sheets (including the Warblington Addendum) and are summarised in Table 1 below.

Table 1 – Result table from PBA Study – August 2009

Junction Name (PBA Result Sheet no)	Year	Flow	Increase	Comments from PBA Study	Status in AM Peak
Langstone Road Roundabout (sheet 21)	2006	1917		Although confidence in the modelled 2006 base flow is low (as the total is under 2000 vehicles). It is known that this signalised junction is currently approaching capacity.	Approaching Capacity
	2016	2075	158	An increase of 158 vehicles by 2016 is small and is unlikely to adversely affect capacity	Approaching Capacity
	2026	2177	260	By 2026 the modelled increase remains low	Approaching

				and the operation of the junction will not be adversely affected.	Capacity
Teardrop Junction (Sheet 8)	2006	2596		The teardrop junction has just been redesigned to allow for an extra arm at the southern end. It has been signalised primarily to allow lower traffic flows to get onto the junction against the higher opposing flows from the north. However based on the modelled flows, this junction is currently operating within capacity.	Below Capacity
	2016	2468	-128	The modelled increase by 2016 is negative and is likely to be a false prediction by Saturn as the new southern arm of the junction is not modelled. Despite poor modelling it is considered that the recent improvements are likely to accommodate future flows. Increased development on the southern arm will result in the junction getting closer to capacity.	Approaching Capacity
	2026	2713	117	The predictions are again likely to give a false impression of future flows. The recent improvements are still likely to be adequate to cater for 2026 levels of development.	Approaching Capacity
Bedhampton – Rusty Cutter – Roundabout – Junction 5 A3(M) (Sheet 7)	2006	4526		Flows modelled for the base situation of this junction are above 4,000 vehicles and this is high enough for a large unsignalised roundabout to be operating close to capacity. As site observations indicate that the junction has spare capacity in the peak periods it is possible that the 2006 Saturn modelled flows are slightly high.	Below Capacity
	2016	4899	373	By 2016 the modelled flows are increased to almost 5000 vehicles which could result in the junction approaching capacity. Proposed signalisation will cater for any potential capacity problems	Approaching Capacity
	2026	5207	681	The increase by 2026 is smaller than the increase from 2006 to 2016 and remains close to 5000 vehicles.	Approaching Capacity
B&Q Roundabout Junction 4 A3(M) (Sheet 6)	2006	2742		The flows modelled for the base situation of this junction are relatively low for a motorway junction, less than 3000 vehicles. Observations indicate that the junction has spare capacity at peak periods.	Below Capacity
	2016	3338	596	By 2016 the modelled flows have increased by 600 vehicles. Proposed signalisation associated with the West of Waterlooville MDA will cater for this and additional flows predicted for 2026	Approaching Capacity
	2026	3430	688	The 2026 modelled increase is very small compared with the 2016 prediction	Approaching Capacity
Hulbert Rd –	2006	2854		The flows modelled for the base situation of	Below

Junction 3 A3(M) (Sheet 5)				this junction are relatively low for a motorway junction, less than 3000 vehicles. Observations indicate that the junction has spare capacity at peak periods.	Capacity
	2016	3459	605	By 2016 the modelled flows are increased by about 600 vehicles. This is likely to be caused by the West of Waterlooville MDA. The flows are approaching 3500 vehicles and are unevenly distributed. This may result in opposing flows which could be problematic and the junction may be approaching capacity. Proposed signalisation associated with the MDA will cater for this and additional flows predicted for 2026	Approaching Capacity
	2026	3996	1142	The modelled increase by 2016 continues into 2026 and the flows near 4000 vehicles.	Approaching Capacity
Dell piece Roundabout – Junction 2 A3(M) (Sheet 4)- _In East Hampshire District	2006	3435		Modelled base flows for this junction are about 3500 vehicles. Observations indicate that that there is spare capacity in the am peak but queues on the northbound off slip in the pm peak.	Below Capacity
	2016	3772	337	The increase by 2016 is not high and is unlikely to result in adverse effects	Below Capacity
	2026	4104	669	By 2026 the modelled increase is 656 vehicles putting the total above 4000 vehicles. For a large unsignalised roundabout this is likely to be approaching capacity. Partial signalisation of the slip roads particularly the northbound off slip may be appropriate at some point in the future.	Approaching Capacity
Warblington Junction with the A27 (Addendum Result Sheet 26 (January 2010))	2006	2272		Modelled base flows for this junction are around 2,000 vehicles. This junction is of sufficient size to handle flows of up to 4,000 before it reaches capacity. Observations indicate that the junction is operating within capacity although there may be some issue caused by traffic queuing from a traffic signal junction (Green Poond Corner/Southleigh Rd) to the west of the interchange.	Below capacity
	2016	2645	373	The increase by 2016 is not high and is unlikely to result in adverse effects.	Below capacity
	2026	3024	752	The increase of 752 by 2026 maintains flows well under the 4,000 vehicle capacity and is therefore unlikely to result in adverse effects.	Below capacity

2.2 The outputs shown in Table 1 establish the quantum of impact on the SRN. The next step is to identify realistic mitigation measures and their funding, to minimise the individual and

cumulative development site impacts, as far as possible, and in order to ensure that the developments are deliverable. This is the fundamental requirement of the Highways Agency (HA) which is the organisation that ensures the safety of the SRN. The HA was involved in the PBA study and supported the methodology used.

2.3 From the commentary in Table 1 it can be seen that there have been recent junction improvements at the Teardrop junction together with proposed junction improvements at The Rusty Cutter and Hulbert Road that will increase capacity and mitigate some traffic impacts. These improvements have been included in the Table 1 flow results.

2.4 The PBA Study incorporated projected vehicular mitigation impacts of planned transport improvements on the M27 climbing lanes, the Tipner interchange and bus improvements in Premium Bus Networks (PBN) and Bus Rapid Transit (BRT). The modelling used an overall increase in bus patronage of 15% in relation to the PBN. The 15% increase is based on survey data obtained from a number of high quality bus routes throughout the UK such as Oxford (52% over 10 years), Ipswich Superoute 66 (63% over 5 years), Bristol Showcase 76/77 (13% over 1 year), Brighton and Hove (50% over 10 years), Portsmouth A3 corridor (7% over 2 years) and Havant Service 23 (33% over 2 years). The modelling also took into account BRT benefits and assumed that 20% of car trips between an origin and destination within 600 metres of a bus stop would transfer to the BRT. This is based on a combination of 'engineering judgement' and using data from the Kent Thameside Fastrack service which has achieved a considerable mode shift from car users.

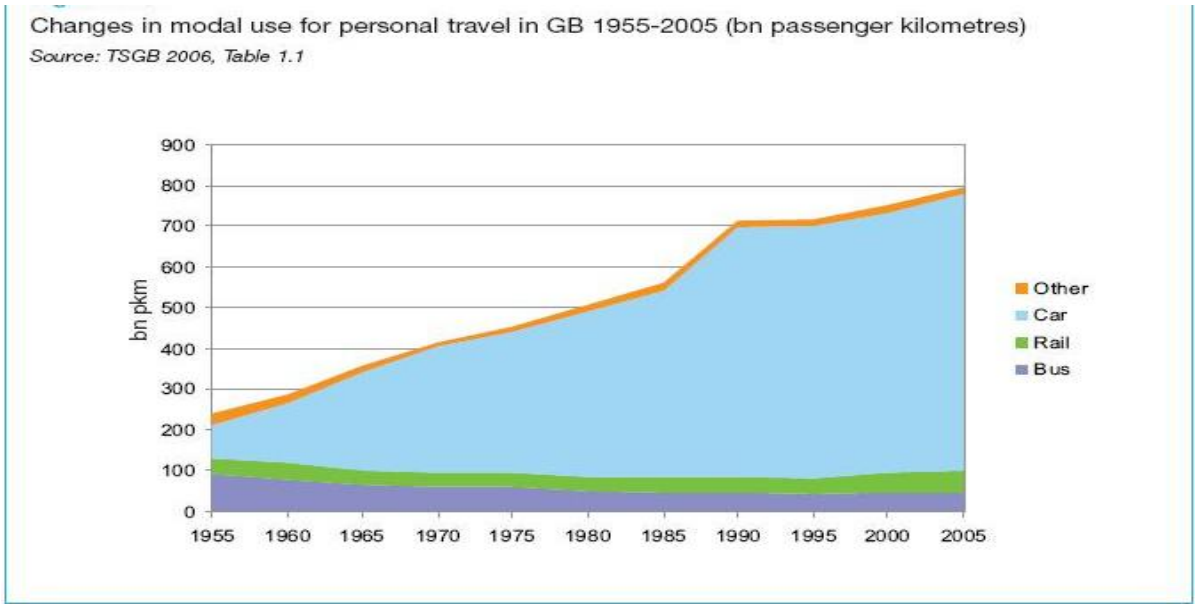
2.5 The relevance of the identified mitigation measure on the data for Havant borough is that the A3 ZIP BRT from Horndean to Cosham is in place and starting to be used. Patronage will increase as the west of Waterlooville Major Development Area (MDA) starts to come on line. The PBA study identified two PBN routes that mitigated car trips within Havant borough; a Cosham – Havant – Leigh park and a Havant - Waterlooville route. Bus improvements have changed slightly since the completion of the PBA study and BRT is now the focus rather than PBN. Discussion has taken place with the transport authorities and the bus companies, Stagecoach, First Bus and Emsworth and District regarding the viability of BRT in Havant borough. There is commercial interest as well as a bid being put forward through Transport for South Hampshire's consultants Mott Gifford for funding. Therefore progress is being made on developing routes similar to those identified as PBN. The bus mitigations that are likely to take place in the borough have to a large extent already been taken into account. There may be some potential bearing in mind the success of the Leigh Park 23 service and 33% increase in bus patronage that has been achieved. However, this will need to be monitored to assess whether any further patronage/modal shift can be achieved.

2.6 The conclusion of the PBA study was that the junctions in Havant are modelled to have increased demand but in general the base demand is low compared with junctions in Fareham and Portsmouth. As a result, the highest status was 'approaching capacity' and this status was primarily influenced by traffic to and from the west of Waterlooville MDA. This implies that it should be possible to accommodate further development based on the normal financial contributions that would accrue from developers as they promote the various sites. These contributions should allow improvements to be made to these junctions (if required) that will cater for the additional development traffic.

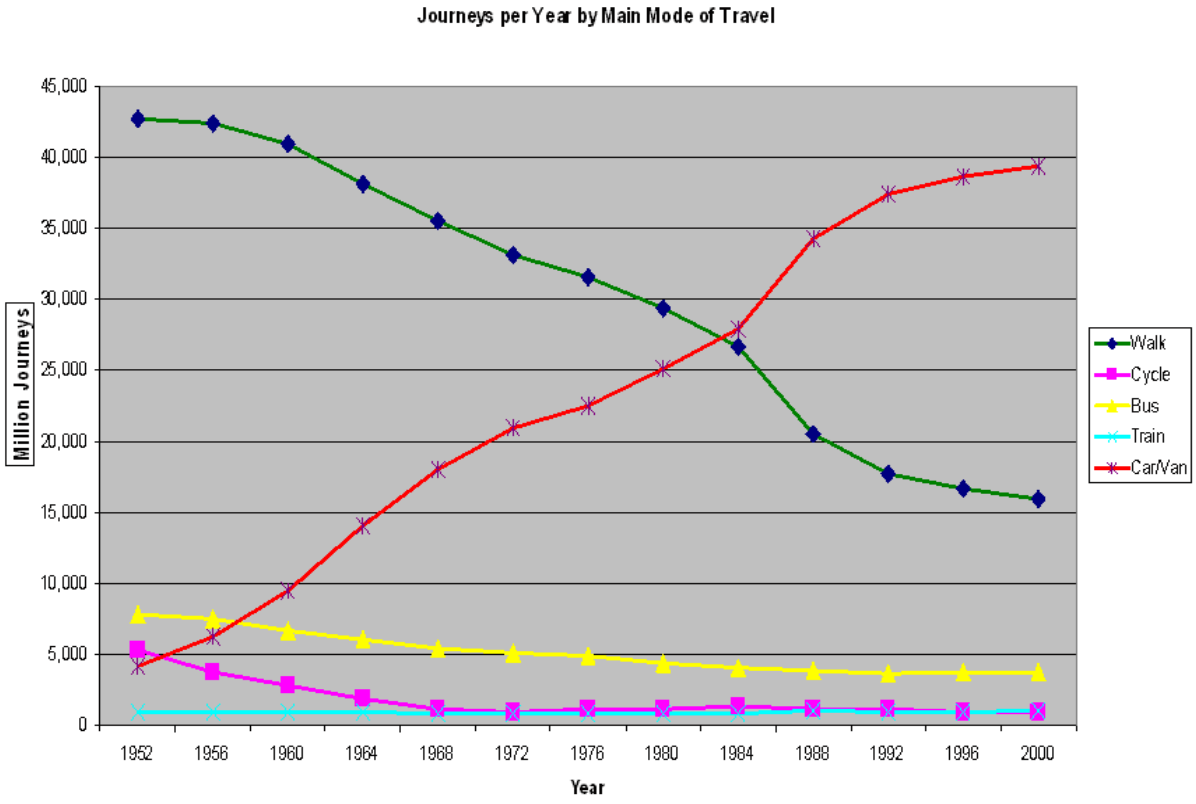
2.7 Although the scale of the transport issue that Havant is facing is not as acute as some neighbouring areas, the PBA study does show that there are increases at some junctions, particularly those on the A3(M), that will need to be monitored to ensure that the planned improvements mitigate the impacts. Additionally Havant has general transport similarities to many other places with the continued aspiration for and reliance on personal car travel. This has meant car travel continues to increase, the use of bus has fallen, rail is rising - but the starkest issue is the massive gap between car usage and other transport modes. This can be seen in figures 1 and 2. The issue of 'peak oil' will be increasingly important

although technology may find a way to continue personal modes of car travel – costs may become prohibitive causing some modal shift. This may be hastened politically although short term political horizons are not geared toward such difficult decisions.

Figure 1



Figure



2.8 The PBA study already includes the potential benefits of more bus travel and the increase in capacity that programmed junction improvements will bring. The next step is therefore to explore what other measures would be appropriate to Havant borough to mitigate the transport impacts of the development on the SRN.

3.0 Overview of Transport Mitigation measures

3.1 At the national and regional/sub regional level the scope for major new road infrastructure is minimal. The strategy is to squeeze more capacity from the existing network through such initiatives as the Highways Agency's plans to extend the use of Advanced Traffic Management (ATM), hard shoulder running, toll lanes and urban congestion charging on the trunk road network. In addition there will be limited capacity investment, such as the local enhancements in the M27 climbing lanes. In South Hampshire transport strategy is administered by Hampshire County Council, Portsmouth and Southampton City Councils under the partnership banner of Transport for South Hampshire (TfSH). The TfSH website provides more detail on its role and strategy. The overall strategy is Reduce -Manage – Invest which can be summarised as: **Reduce** - Reducing the need to travel will limit the demand for resources (including fossil fuels) by encouraging shorter journeys and more sustainable choices. **Manage** - Networks will be managed to optimise their performance. Highways will be improved where the capacity of the wider network will benefit. Public Transport operators will be encouraged to develop bus and rail networks to meet new and changing demands and provide high quality travel choices. **Invest** - Some new infrastructure will be essential to deliver the growth and the improvement in economic viability of South Hampshire, yet still maintain a high quality of life for residents and visitors.

3.2 The starting point of further mitigation measures must be to maximise opportunities to influence travel behaviour and choice across South Hampshire in order to reduce journey lengths and the need to travel, particularly by private car. This is the strategy identified by TfSH that considers three types of transport mitigation measures. The strategy is referred to as the 'reduce strategy', which is where its' focus lies but it also includes manage and invest elements:

- **Smarter Choices** – A range of generally "softer" measures that aim to influence travel behaviour.
- **Land Use Planning** – A range of measures that can be applied to new developments to reduce the demand for travel
- **Demand Management** – Measures that aim to control the demand for travel. This includes political sensitive measures, such as congestion charging schemes, but also other mechanisms, such as car parking management.

3.3 TfSH is developing the 'reduce strategy' and has made some initial recommendations as to which types of reduce measures could be applicable to different areas within the sub region. Havant borough is an urban area for which the reduce measure listed in Table 2 could be most appropriate.

Table 2 – PUSH Reduce Measures Recommended for Urban (District Centres)

	Measure	**Classification**
High Priority Measures	Car sharing	Smarter Choices
	Development Control	Land Use Planning
	Forward Planning	Land Use Planning
	Smarter Living (Home working / Deliveries)	Smarter Choices
	Car parking standards / management	Demand Management
	Encouraging Walking	Smarter Choices
	Improved Travel Information	Smarter Choices
	Improved Urban Design – New Build	Land Use Planning
	Personalised / Residential Travel Planning	Smarter Choices

	Workplace / Area / Retrofit Travel Plans	Smarter Choices
Medium Priority Measures	Car Clubs	Demand Management
	Congestion Charge	Demand Management
	Encouraging Cycling	Smarter Choices
	Improved Crime Prevention	Land Use Planning
	School Travel Planning / Safer Routes to School	Smarter Choices
	Workplace Parking Levy	Demand Management
	Improved Urban Design – Retrofit	Land Use Planning
	Station Travel Planning	Smarter Choices
	Supporting Local Shopping	Land Use Planning

3.4 The TfSH work on the reduce measures confirms that within existing urban settlements it should be possible to reduce peak hour traffic flows by approximately 20% if Smarter Choices are applied intensively over a 10 year period. The DfT Sustainable Travel Towns project has shown reductions of over 10% in car trips (undefined by time of day) after two years. Smarter Choices are not a politically sensitive area, unlike demand management. Nevertheless, the intensive application of Smarter Choices requires investment, although comparatively less than new roads. TfSH proposed a £17m investment (Towards Delivery) in reduce measures up to 2026. This compares with the £27m budget for the 9 month construction of the M27 climbing lanes. Decisions on future funding of the reduce strategy smarter measure are under review. Introducing Demand Management measure to generate income to intensively implement Smarter Choices is an option, although the political decision making will be difficult.

3.5 Land Use Planning is a significant area that the Development Plan system and the Local Development Framework (LDF) is a key tool in delivering change. Core Strategies must distribute development so that it is located in the most accessible locations, relative to site availability and deliverability. The Havant Core Strategy will contain policies that ensure all new development must be built to a high design standard that reduces crime and supports an accessible hierarchy of shopping and other facilities.

3.6 Demand management is politically sensitive, particularly in the current economic climate. Decision makers do not want to undermine the economic recovery by placing transport charges on to business or any other sensitive part of the electorate.

4.0 Transport Mitigation Measure for Havant Borough

4.1 Looking at the 2001 census a picture of the travel choices made in the borough (Table 3) in 2001 shows that overall the people in the borough had above average car dependence and relatively lower use of train, bus and walking. Further date will become available after the next census due in 2011.

Table 3 - Journey to Work Mode Share (Daytime Population: People Currently Working) 2001 census (%)

	Work at Home	Train	Bus/ Minibus/ Coach	Taxi/ Minicab	Car/Van Driver	Car/Van Passenger	Motor-cycle	Cycle	Walk	Other
Havant Borough	10.3	1.4	4.4	0.8	60.9	7.3	1.2	4.2	9.1	0.4
Hampshire	10.0	1.4	4.6	0.4	59.9	6.2	1.4	4.6	10.6	0.8
South East Region	10.5	2.5	4.4	0.4	60.9	5.9	1.1	3.2	10.4	0.7
England	9.2	4.2	7.5	0.5	55.0	6.1	1.1	2.8	10.0	3.5

4.2 Table 2 identifies the reduce measures that are most likely to positively impact on an area

like Havant; considering the measures with the spatial characteristics of the borough it is considered that the borough is in a good position. Havant, by virtue of its geographical nature and historical development is a significant transport location with one large and 3 smaller mainline station, a major bus station and a relatively compact urban form. The road network is modern, there is a relatively dense bus network, and main line rail stations are accessible. There are few areas of the borough where congestion is systemic and which limits the potential for development. The main areas of employment, leisure and commerce are well located relative to the residential areas which they serve. The area's climate and topography will generally support measures for a move towards more sustainable modes. In addition, Havant is unusual in that over 20% of households do not have access to private transport, and this must be seen as an opportunity to as regards sustainable transport.

4.3 A review of the Reduce mitigation measures listed in Table 2 in terms of their relevance to Havant borough is shown in Table 4. Table 4 groups the measures under the three classifications of Smarter Choices, Land Use Planning and Demand management. The measures are listed in the priority order recommended in the PUSH report and an action commentary sets out how and when the measure could be in place and how it could be funded.

4.4 It is imperative that the individual measures in Table 4 are coordinated. Transport for South Hampshire, HCC, Havant BC and the variety of businesses and organisations that have a role in delivering the measures could duplicate services unless there is adequate coordination. Clarity on who will provide the coordination is fundamental to the success of both the individual and the even greater potential cumulative benefits that can be achieved from the mitigation measures.

Table 4 – Mitigation Measures Action Plan for Havant Borough.

Classification	Measure	Action Commentary	Timing & Funding
Smarter Choices	Car sharing	The Hants Car Share Website has nearly 350,000 members. There is also a shared taxi scheme run by HCC that covers the North Hayling area for elderly and disabled people. NHS Patient transport also has shared vehicle services for those attending NHS appointments. Further details are available through the Council's web pages on Community Transport.	The car share web facility is running. More investment from LTP3 and S106 contributions could help promote and extend the impact of all the transport sharing schemes.
	Smarter Living (Home working / Deliveries)	The eHampshire organisation website is dedicated to providing Smarter Working facilities including the MATiSSE smarter working project.	eHampshire and MATiSSE are ongoing and funded by SEEDA. This is an excellent facility and needs to be promoted more.
	Encouraging Walking	The emerging Havant Walking & Cycling Strategy confirms that existing footpath structure is a sound baseline. Ongoing safety lighting improvements, ongoing footpath maintenance & surface improvements; education/signage improvements – production of 'walking networks map' with links to bus network; vouchers for walking related services	Ongoing programme working in partnership with Hampshire highway authority utilising maintenance funds and green transport Section 106 funds.
	Improved Travel Information	Google & Bing maps provide journey planners. Nation Rail provides ticket purchasing facilities. Havant has a dedicated travel planning website developed by Xephos that links to real time running data for all modes of travel including local and national coaches, rail, ferries, including Hayling Ferry.	In place and will continue to be improved. Funded by HBC/HCC.
	Personalised / Residential Travel Planning	The Xephos travel planning website referred to above enables individuals to travel plan	In place and will continue to be improved. Funded by HBC/HCC.
	Workplace / Area / Retrofit Travel Plans	As part of the Havant Public Service Village (PSV) proposals, the Council is taking an important leadership role in changing attitudes towards workplace travel. The travel plan will consider a 25% increase in staff with no additional parking The new Scottish and Southern Electric call centre development at Langstone Technology Park has also implemented a workplace travel plan. The impact of this is being monitored and could provide useful lessons. Strategic employment sites, e.g. Dunsbury Hill Farm, and existing large business parks will be a focus for workplace travel planning.	SSE is currently being implemented and paid for by the company. PSV proposals are emerging and will be paid for from the redevelopment.
	Encouraging Cycling	The emerging Havant Walking & Cycling Strategy identifies a two-part system formed of CORE and LOCAL routes, and, most importantly, links into and builds upon the development of the National Cycle Network (NCN). The improvement of the borough cycle network has potential to improve health,	Ongoing programme working in partnership with Hampshire highway authority utilising maintenance funds and green transport Section 106

		reduce car use, particularly bearing in mind the good weather and flat topography. Cycle improvements are included in the Core Strategy developer contributions requirements.	funds. Currently looking to attract match funding from SUSTRANS for local investments.
	School Travel Planning / Safer Routes to School	Hampshire as both the education and transport authority for Havant borough has taken a leading role in school travel plans and safer routes to school. A dedicated school travel plans and safer routes to school website sets out the latest news	Ongoing – HCC funded.
	Station Travel Planning	The DfT currently has a 30 station pilot at major stations to include managing station car parking, linking buses, cycling parking etc. Consideration is being given to Emsworth station being the priority in the borough when the projects are rolled out beyond the pilots	Ongoing – funded by Rail companies and DfT
Land Use Planning	Development Management	Development management/control implements planning policy from the saved local plan, the emerging LDF and SPD. The 1App planning application information for Havant requires the submission of travel plans on larger developments. The Council seeks developer contributions in accordance with Hampshire County Council Transport Contributions Policy (September 2007) on all new development. The details available on the Council website. Traffic Assessments will be required to be submitted for all major applications to show the development impacts and the specific mitigation measures, which could include controlling traffic entering the road network through traffic lights to the contributions to or implementation of softer measures.	Developer funded.
	Forward Planning	Emerging Draft Core Strategy has distributed the development to areas that have good accessibility wherever possible. The specific sites are being considered through the SHLAA and the ELR. The accessibility of the specific sites is a major consideration in rating the sites, which will be allocated through the Development Delivery (Allocations) Plan. Site allocations made in the Development Delivery (Allocations) Plan will require more transport details to be provided to ensure that their impact on the highway network is minimised and that the proposals incorporate the necessary mitigation. The saved policies of the local plan allocate accessible sites and require the payment of developer contributions for transport improvements such as the A3 ZIP corridor and the Broadmarsh Business area travel planning.	Core Strategy programmed for Submission to Government Summer 2010. Mitigation will be Developer funded

		Proposed Core strategy Policies CS18, DM11 – DM12 will be critical to the implementation of the overall mitigation proposals. These policies will be used to determine all planning applications. The policies contain requirements that all new development considers its impact on the road network, incorporates facilities for non car transport and has reduction of vehicular use at the heart of its design.	
	Improved Urban Design – New Build	The Proposed Core Strategy includes policy CS14 which will be implemented through the development management process to ensure that new developments are of a good design that enable ease of movement	Ongoing – implemented by Core Strategy policy/Development Management and developers.
	Improved Crime Prevention	Fear of crime deters people from walking, cycling and using public transport. HCC/HBC are working with relevant groups to improve lighting, secure cycle parking, security on public transport and CCTV. Emerging draft Core Strategy policies and Development Management require crime reduction measures to be incorporated into new development.	Ongoing – funded by HCC, TfSH, S106 and developers.
	Improved Urban Design – Retrofit	The planning system only deals with new development. No current information on retrofitting for transport mitigation. Retrofitting emphasis currently on energy saving – which has a knock on impact when linked to working from home. The Government has two current schemes for retrofitting energy improvement measures, the Community Energy Saving Programme (CESP) and the Carbon Emissions Reduction Target (CERT).	Ongoing – funded through central government schemes including CESP & CERT
	Supporting Local Shopping	Emerging LDF policies will continue to maintain the shopping hierarchy and retain local shops. However, the impact of major supermarkets is significant in this sub region – perhaps to an extent that there is such a choice of supermarkets that they are becoming 'the local shop'. There is a focus of retailing on the larger town and district centres that will continue to sustain facilities. The large supermarkets in the area provide internet ordering and home deliveries which will reduce individual journeys. Specialist local shopping is also being promoted through farmers markets and Hampshire's local food initiative Hampshire Fare.	Ongoing – through LDF policy, Development Management of planning applications and promotional initiatives such as the Hampshire Fare.
Demand Management	Car parking standards / management	Residential car and cycle parking Supplementary Planning Document (SPD) due for adoption March 2010 will require lower car parking standards in accessible locations and cycle parking provision in all new development. Non residential parking uses HCC standards. Consideration being given to reviewing these and creating a new SPD.	Ongoing. Developer funded.
	Car Clubs	There are currently no car clubs in Havant. The nearest commercial club is	Privately funded cars – HCC is

		the City Car Club at Southampton. More local clubs could be developed and the Hants car share scheme is taking a lead on promoting 'CommonWheels' and car clubs UK	promoting the idea through its websites.
	Congestion Charge	Decisions on congestion charging will have to be taken at city or regional level as they will impact on the local economy	No decision
	Workplace Parking Levy	Decisions on workplace parking levy will have to be taken at city or regional level as they will impact on the local economy. There may be potential to identify pilot business parks where travel planning could be incorporated into a parking levy to produce positive results. However, this will need to be coordinated at a city or sub regional level	No decision

5.0 Mitigation Study Conclusions

5.1 The action plan set out in Table 4 outlines the wide range of initiatives that are currently being implemented and will need to be developed further during the period up to 2026. The development of these existing and new mitigation initiatives will result in a decrease in the number of vehicular journeys that use the SRN. The quantification of these benefits is an area of emerging research. The latest position form the Department for Transport (DfT) estimates the potential benefits from the smarter choices as set out in table 5 below.

Table 5 – Potential mitigation impacts of Smarter Choices

Initiative	Potential Impact
Workplace travel planning	Reduce car use by up to 25%
School travel planning	Reduce school run traffic by up to 15%
Personalised travel planning	Reduce car use by up to15% in urban areas
Awareness campaigns	Up to 40% of residents influenced
Car clubs	Reduction in car mileage of up to 3,600 kilometres per annum per participant
Car sharing	Reduction in car mileage of up to 4,500 kilometres per annum per participant. The Car sharing database in Milton Keynes showed a 34% increase in car sharing amongst 11,658 drivers and passengers.
Teleworking	Reduction in business mileage of up to 10%
Home shopping	70% - 80% reduction in mileage for grocery shopping by those participating

5.2 The DfT has produced guidance on best practice in achieving the benefits of smarter choices in their November 2009 publication Delivering sustainable, low carbon, travel: An essential guide for Local Authorities. A number of sustainable travel towns (Darlington, Peterborough and Worcester) have been piloting some of the mitigation measures from 2004 until 2009. The evaluation report (February 2010) shows:

- A reduction in car trips 9 per cent (there was an estimated fall of about 1 per cent in other medium-sized towns over the same period).
- Bus trips per person increased by 10-22 per cent (there was an estimated national fall of 0.5 per cent in medium sized towns).
- Cycle trips per person increased by 26-30 per cent (against other comparable towns seeing estimated cycling trips fall by 9 per cent).
- Walking trips per person increased by 10-13 per cent (there was an estimated national decline in trips in similar towns of 9 per cent).

5.3 These are impressive results in terms of the DfT cost benefit ratio (4.5) and the conclusion of the report is ‘that the current evidence base is sufficient to justify a substantial expansion of implementation of Smarter Choice Programmes’.

5.4 Looking at the picture of the impacts of the development proposed in the borough up to 2026 the PBA study shows that whilst the junctions are approaching capacity, their function and safety does not appear to be undermined. The HA has questioned the basis of the conclusions on the capacity of each junction. Nevertheless, the Harbour Authorities and PBA believe the conclusions to have used the best available modelling technology, a high

level of professional assessment and should be considered to be sound.

5.5 The PBA study incorporates the likely benefits that may be seen from investment in bus travel. The junction flow increases identified the PBA study can be reduced by implementing the various mitigation measures outlined in this study. It is considered that no one or two of the measures will provide solutions that are most applicable to Havant. Every one of the measures will have a role to play at some time over the plan period.

5.6 The fundamental issue about the mitigation measures is how and when they will be implemented. Havant Borough Council is not a transport authority. The DfT, Highways Agency, Hampshire County Council and Transport for South Hampshire are the transport authorities that together with developers meeting the policy requirements of the Havant Borough Local Development Framework (HBLDF) will implement the mitigation measures. The Sustainable Travel Towns initiative has proved successful and at a low cost relative to road building. Nevertheless, the costs (revenue and capital) of £4.4m each in Darlington and Worcester and £6.8m in Peterborough over the five year programme are significant sums that need to be planned into the highway authorities programmes.

5.7 The Core Strategy sets out the strategic policies that will ensure that all the mitigation measures are considered by developers; the transport authorities will provide overall plans for the implementation of the mitigation measures. Detailed mitigation measures will be identified through specific site allocations, in the strategic sites in the core strategy and other sites in the Development Delivery (Allocations) Plan. Continuing improvements in the coordination, prioritisation, planning and funding of the mitigation measures are essential to the successful management of traffic growth on the SRN. The Havant core strategy policies provide a sound framework for this to take place.

Appendix 1 – PBA Study Junction Identification