

TRANSPORT DELIVERY PLAN

2012- 2026



CONSULTATION DRAFT

DECEMBER 2012



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Economic Growth

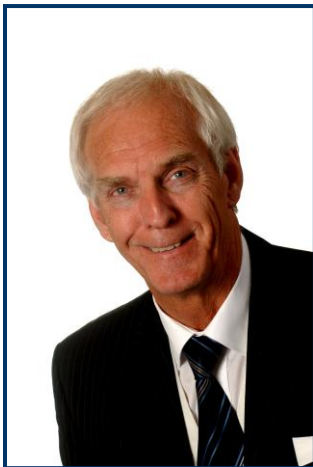
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FOREWORD



Councillor Melville Kendal
Chairman of the TfSH Joint Committee

I have always been convinced of the need for a robust and evidence-based delivery plan that identifies the transport investments that will deliver economic growth. Whilst the strength of the link between transport infrastructure delivery and economic growth is well-known, today, I see the role of transport investment as more critical than ever. Transport investments that respond to evidenced constraints and unlock opportunities will ensure that South Hampshire and the Isle of Wight can react to the challenges brought about by the current economic situation and equip the area with a transport network that does not impede economic growth but supports the conditions in which businesses can flourish.

The Sub-Regional Transport Model (SRTM) has proved a valuable investment for TfSH, having supported our successful applications for Local Sustainable Transport Fund and Better Bus Area Fund monies. As we move into an era of constrained public funding the role of evidence is now more critical than ever, and as we develop further the schemes identified within this plan, the SRTM will continue to play an important role.

A desire to support economic growth, create employment opportunities and safeguard jobs is at the heart of this delivery plan. However, this must be achieved in a sustainable way so that this area remains resilient to future change and so that residents, business and visitors continue to value the area.

This delivery plan focuses on investments that are strategic and form part of a coordinated approach to delivery to 2026. Coordination is vital as it ensures that we limit the potential for unintended consequences of transport proposals and provides opportunity for the multiplication of benefits – and therefore, greater value for money.

I am pleased with how the Transport Delivery Plan is taking shape, and, following this final phase of consultation, we will have a clear plan that provides a position of strength from which to secure new funding and support sustainable economic growth.

Melville Kendal

STATEMENT FROM THE SOLENT LOCAL ENTERPRISE PARTNERSHIP

To be included in final document.

STATEMENT FROM SOUTH HAMPSHIRE BUS OPERATORS' ASSOCIATION

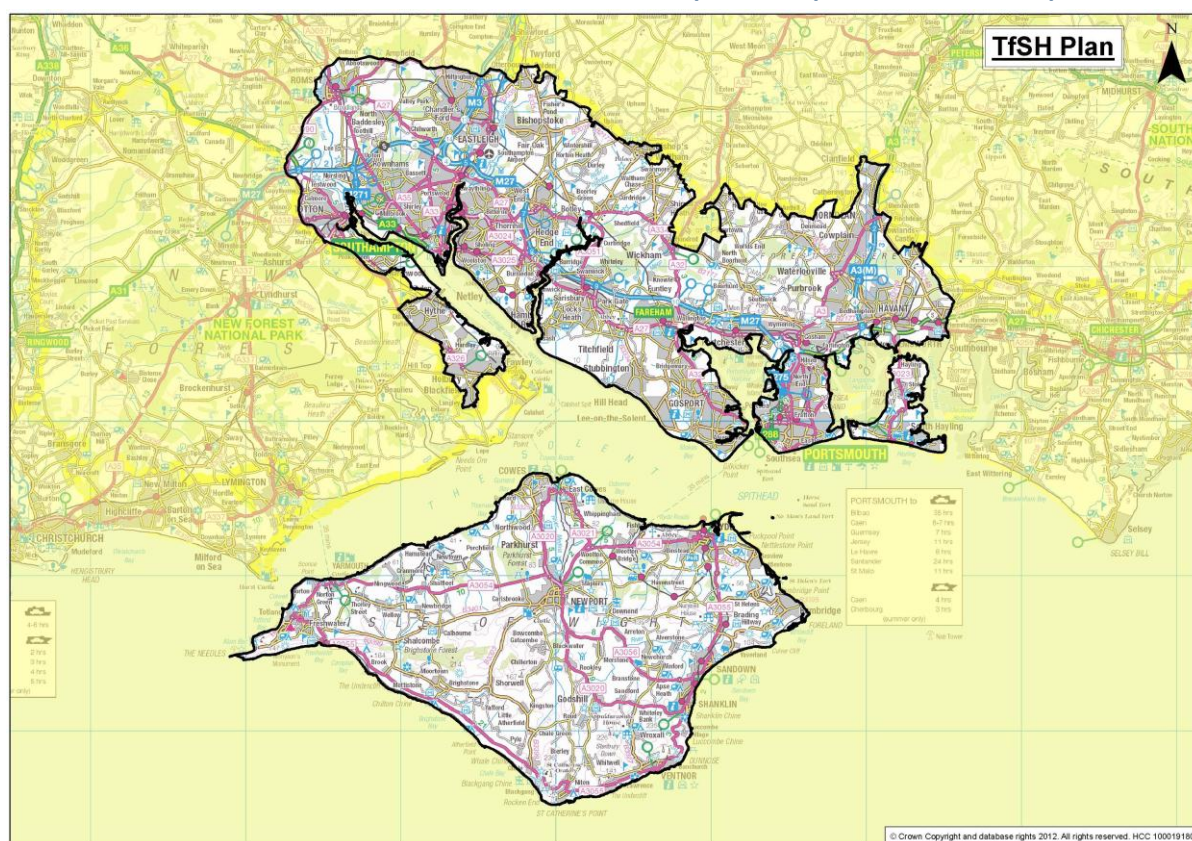
To be included in final document.

1. SETTING THE SCENE

1.1 TRANSPORT FOR SOUTH HAMPSHIRE

[Transport for South Hampshire](#) (TfSH) is a partnership comprising the three Local Transport Authorities (LTAs) of Hampshire County Council, Portsmouth City Council and Southampton City Council. At the September 2012 Joint Committee TfSH recommended that the Isle of Wight Council become a full member of the partnership. This recommendation is going through the decision processes of the three TfSH authorities. If the Isle of Wight Council's membership of TfSH is approved, the partnership will cover the area shown in map 1. Currently the partnership covers the mainland area highlighted on the map below.

Map 1: Transport for South Hampshire Area



Source: HCC, 2012

By working collectively, TfSH provides a more powerful and effective strategic force in improving transport in the area than the four authorities would otherwise achieve by working separately. The partnership recognises that the transport movements in this polycentric and interconnected urban area do not respect administrative boundaries and so provides a mechanism through which solutions across boundaries and partners can be developed and funding secured. Partners such as public transport operators, Department for Transport (DfT), Highways Agency, Network Rail, the Solent Local Enterprise Partnership (LEP), and districts, amongst others, play an important role in the success of TfSH.

1.2 RATIONALE FOR THIS DELIVERY PLAN

In 2008, TfSH published its first delivery statement - [Towards Delivery](#) – which proved useful in identifying priorities for the former Regional Funding Allocation and included a number of schemes that have subsequently secured funding (e.g. Bus Rapid Transit, Tipner Interchange and Park & Ride, Northern Road Bridge, Portsmouth). However, since that time there has been a significant national policy shift to focus on economic growth, brought about by the unprecedented problems in the global economy, which themselves have contributed to a significant curtailment of public funding. In short, we are in a new world and there is

an imperative to provide robust evidence that an intervention is both linked to a demonstrable problem and will provide value for money. Costs and schemes included within Towards Delivery have been reviewed as part of the process outlined in section 3.

In the current climate, evidence is crucial and the gap that previously existed in our evidence base was filled by a new commission of a comprehensive evidence base in the form of the Sub-Regional Transport Model (SRTM), which is summarised in appendix 1. The SRTM has been used to identify where transport interventions are (and will be) required as a consequence of growth and changing travel patterns. The SRTM has then been used to test schemes to provide an optimum multi-modal delivery blueprint that delivers economic growth.

1.3 THE SCOPE OF THIS DELIVERY PLAN

This TDP identifies a set of schemes for the period up to 2026 (in sections 8 – 10), framed by an overall approach to delivery that positions TfSH with the flexibility to mobilise quickly to secure funding opportunities from a variety of sources. It is not a transport strategy document; the transport strategy for the area is set out in the [Joint Strategy for South Hampshire](#) and in the [Isle of Wight Local Transport Plan](#), and the TDP is consistent with both. Schemes not included within this TDP are deemed to not be required before 2026, given current planning assumptions and strategy focus.

The underpinning strategy and the approach to delivery are both critical. Whilst there is a prevailing need to deliver transport schemes that respond to economic priorities in the short term, there is also a need to be mindful of the consequences of these decisions on the future transport situation, and, as a consequence, on the economic performance of the area in the future. Our modelling capability enables us to understand the future transport situation and model the impact of transport schemes and proposed new development in a powerful way that has not been available to us in the past. To focus solely on short-term wins that ignore future consequences may only store-up, and exacerbate, transport problems for the future. Therefore, whilst this delivery plan supports immediate opportunities that deliver new sustainable economic growth, it does so in a way that will not compromise the economic success of this area in the future.

To be successful, we need to not only promote schemes that respond to evidenced problems and that provide value for money, but be innovative in our approach to funding. We will need to develop *funding cocktails* that pool resources to fund and deliver schemes, and also explore alternative financing arrangements that in some instances may be the only way in which a transport scheme will be delivered. If we do not take an innovative approach, we may not be able to deliver the full range of transport schemes that are identified within this document.

The geographic scope of this plan was expanded in mid-2012 to include the Isle of Wight, to ensure consistency with the Solent LEP geography. However, the SRTM coverage of the Isle of Wight is not as detailed and its ability to model transport schemes is less, in comparison with its ability for the mainland TfSH area. Whilst this deficiency is something that is being rectified, it does mean that the focus of this plan is on the mainland area.

This plan is a strategic plan and as such does not include the wide range of transport schemes that are being taken forward by the four authorities. The Local Transport Plan implementation plans of [Hampshire County Council](#), [Isle of Wight](#), [Portsmouth City Council](#), and [Southampton City Council](#) are available online. In respect of the Hampshire County Council area, all schemes – local and strategic – will be included within [Borough / District Statements](#).



Schemes included in this plan are not restricted to those where delivery is by the LTAs or where public funding is required. For example, the plan identifies public transport schemes that may be attractive commercially, schemes where delivery would be by the relevant network provider (HA or Network Rail), and schemes required to enable development, where developer funding would be expected.

We will take forward (*progress more detailed work*) the strategic schemes that have been objectively assessed to respond to identified constraints and facilitate growth.

It is important to recognise that the TDP represents where we are now based on forecast growth. However, things change, and this plan should be seen as a live document that will be reviewed on a six-monthly basis as evidence changes and as opportunities present themselves.

In addition, whilst the schemes presented in sections 8-10 provide the focus for investment, at the same time, TfSH will continue to plan for beyond this period and identify schemes that may have potential in the longer term, for example, Botley Bypass and Gosport Western Access.

1.4 FUNDING

TfSH will progress work with its partners to identify funding opportunities for the schemes to be progressed within this delivery plan. Key opportunities exist with the devolved major local transport schemes fund (managed by Local Transport Bodies), the Solent LEP Growing Places Fund, and through provisions within any City Deal that emerges for the area. There is also an important role to be played by developer funding.



City Deal

Our challenge is to rebalance the local economy in favour of the private sector, improve the business stock and reindustrialise the economic base, supporting the development of knowledge-based industries and high value added manufacturing, thereby providing a catalyst for regeneration. Within this we have to realise the potential of our cities and support areas that are economically vulnerable in order to substantially reduce the high levels of welfare dependency and secure additional job opportunities for those not in work. In addition we have to target investment in skills to enable higher levels of employment and deliver a more balanced and sustainable pattern of growth to ensure that local residents are equipped to take up the jobs that are created. The area lags behind the South East Gross Value Added (GVA) and offers huge potential for growth. The need to realise is heightened by the direct and indirect impact of cessation of vehicle and ship building on jobs, skills and communities. The City Deal process will provide a forum in which the differing but complementary offers of the two cities can be brought together as a single driver of sub-regional economic growth. The City Deal is key to unlocking over £2bn of economic development (£1bn in each city) as well as addressing wider economic objectives. Economic development of this scale means that we need to explore with Government the help available through innovative flexible financing schemes and also how strategic land release can support these large scale developments.

Within Portsmouth, the “Shaping the Future” strategy, and the Portsmouth Plan, provide overarching frameworks for bringing forward physical development of the city in line with wider objectives around economic and social regeneration in the city. This includes the need to develop office-based employment growth in the city centre. The key sites will also enable further growth in the key employment sectors for the region: advanced technology and manufacturing, defence, marine and tourism. However, major development sites such as Dunsbury Hill Farm, Horsea Island and the Northern Quarter of the city centre require new road and transport infrastructure to make them viable and in some instances the release of key parcels of land. The Western Corridor Transport Strategy is looking to address the background growth in travel associated with employment growth in the city centre.

Southampton launched its city master-plan in 2012 with very strong private sector interest. In the previous decade Southampton, the largest city in the region with a population of 240,000, gained only a net increase in private sector jobs of 2.2%: the city master-plan addresses some of the short-comings of the previous era. Development of the available land is central to the plan, focussed on a small number of core developments. These include the Waterfront, the Riverfront, the city centre and core communities through highways links. Further plans are now being developed to link these investments with a new low carbon strategy, projecting substantial green economy job creation.

Unlocking the development of all these sites, across the two cities and the wider sub-region, will mean that when they are successfully developed, the local authorities (and in some cases, neighbouring authorities) will receive community infrastructure levy, business rates/council tax and new homes bonus, as well as generating growth in other tax revenue streams, including: VAT, reduction in support, and income tax.

Six economic growth hubs have been identified as key to the City Deal. These are:

- Solent Enterprise Zone
- Southampton Airport Gateway
- Shaping Portsmouth (which includes the Royal Navy Base, the Northern Quarter, Tipner and Horsea Island/Port Solent)
- Southampton Waterfront
- Dunsbury Hill Farm
- New Community North of Fareham

However, to realise the proposals outlined in the document innovative funding solutions may need to be considered and TfSH will take forward work on looking at funding opportunities in 2013.

2. AREA CHARACTERISTICS

2.1 POPULATION AND GEOGRAPHY

The TfSH area covers some 952 km². The Population of the area is just under 1.2m (2010), 88% of which is on the mainland, making it the most urbanised and populous area in the South East of England outside London.



Accessibility is strongly influenced by the coastal setting, dominated by The Solent, which separates the Isle of Wight from the mainland, and the five main rivers crossing the area. Southampton Water and the River Test separate the urban Waterside area in the New Forest from the city of Southampton; the River Itchen represents a major river crossing within Southampton; The Hamble River and Portsmouth Harbour give Gosport its peninsula characteristics; The Medina dissects the northern part of the Island, whilst the city of Portsmouth is predominantly contained within Portsea Island. This effectively creates a number of peninsulas across South Hampshire, making inter-urban travel opportunities more difficult to provide.

Pockets of deprivation exist, with Portsmouth and Southampton the fourth and fifth, respectively, most deprived authority areas in the South East. Outside [Portsmouth](#) and [Southampton](#), pockets of deprivation also exist on the [Island](#), and in the [Hampshire](#) districts of Gosport, Havant and the New Forest.

2.2 ECONOMIC CONTEXT

South Hampshire and the Isle of Wight reflect a functional economic area, anchored around the two cities of Portsmouth and Southampton and the M27 corridor. The area has economic linkages with its neighbouring areas, and also with the regional, national and global economies, principally through its three international gateways:

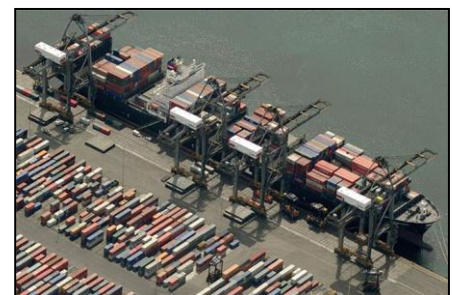
- Port of Southampton
- Port of Portsmouth
- Southampton Airport.



The area has a diverse economy, with a significant marine-related sector, reflecting its coastal location, and important service and advanced manufacturing sectors. The retail and leisure sectors are also important, with significant investment, particularly in the city centres over the last 10 to 15 years. Tourism is an important feature of the Island's economy. However, despite these strengths, the local economy has been underperforming compared to the rest of South East England and the two cities, in particular, punch below their weight and perform poorly in comparison to many northern industrial cities across a number of economic metrics.

2.2.1 INTERNATIONAL GATEWAYS IN SOUTH HAMPSHIRE

The area has three international gateways: The Port of Southampton, the Port of Portsmouth, and Southampton International Airport. These key transport hubs play a significant role within the local and national economies and attract significant volumes of freight and passenger trips from elsewhere in the UK. The Port of Southampton, in particular, plays a key role in the supply-chain for the UK economy and has seen exceptional growth in recent years.



The Solent Waterfront Strategy (June 2008) highlighted that marine industries contribute significant economic benefits to the local area (£3.6 billion), providing 25,000 direct jobs and making up around 20% of the Solent economy. The Strategy states that the areas importance for marine industries is founded on

three key activities: the commercial port of Southampton, the defence port of Portsmouth and the marine leisure and recreational business based at Lymington, the River Hamble and Cowes. These three activities are identified as being of national importance and the very essence of the marine asset in the Solent area, their continued growth and prosperity being directly linked to the economic prosperity of the area.

2.3 NEW DEVELOPMENT

Following a recent review of the Partnership for Urban South Hampshire (PUSH) [Spatial Strategy](#), which was adopted in October 2012, provides a framework to guide sustainable development and change. There are a number of policies including employment, skills, transport (provided by TfSH), green infrastructure, and arts, culture and tourism. In combination, the policies and proposals will help maximise economic growth, help bring about a renaissance of Portsmouth, Southampton and other urban areas, and help ensure affordable family homes and good quality jobs for all.

Policy 4 of the Spatial Strategy, sets the following targets for development in the mainland area (excluding the Waterside area of the New Forest) for the period 2011-26:

- 580,000 square metres of net additional office floorspace;
- 550,000 square metres of net additional manufacturing and distribution floorspace;
- 55,600 net additional dwellings.

The vast majority of new development (80%) is to be provided within existing urban areas, in line with the PUSH *Cities First* principle. Up to 2016, development will be focused on existing allocations and on other brownfield sites within the two cities and other urban areas. Preparatory work will take place during this period on sites which will be developed after 2016. In the ensuing ten years 2016-26, that focus on brownfield

sites will continue but with Greenfield development being concentrated in the New Community North of Fareham (NCNF) and at a number of urban extensions such as Dunsbury Hill Farm.

Cities First

'Cities first' is the shorthand term, which has been used to describe the approach of focusing on regeneration and redevelopment in the two cities and other urban areas ahead of major development on greenfield sites.

Policies 1 (Overall Development Strategy) and 2 (Urban Regeneration) of the PUSH Spatial Strategy are particularly relevant to this delivery plan. Policy 1 states *"Portsmouth and Southampton will be dual focuses for investment and development, as employment, business, retail, entertainment, higher education and cultural centres for the sub-region. The other towns will play a complementary role serving their more local areas. Portsmouth and Southampton will also be a major focus for residential growth, alongside these other areas."*

Policy 2 states *"The environmental quality of the two cities and other urban areas should be enhanced so that they are increasingly locations where people wish to live, work and spend their leisure time. Investment and improvements in transport and the public realm should reflect this, as should the location of sites for development. High density development should be encouraged in the city and town centres, around public transport hubs and at other sustainable locations. Flood defences in Gosport, Portsmouth and Southampton will need to be improved in tandem with regeneration and further development."*

2.4 TRANSPORT CONTEXT

The Trunk Road network comprises the M3, M27, A27(T), A3(M), M271 and part of the M275. The M3 and A3(M) provide connections northwards towards London. The M3 connects to the A34 at junction 9 and provides a key strategic link to the Midlands. The M27/A27(T) provide routes to the West and East along the South coast. The M271 and M275 provide connections into the urban city areas of Southampton and Portsmouth respectively, including the port facilities. The M27 provides direct access to Southampton Airport. As well as strategic flows, these motorway routes are used



by high levels of local traffic travelling between the main urban areas and therefore perform a key local distributor function on top of its strategic loadings.

The rail network provides direct passenger services to a number of London stations from Southampton and Portsmouth, the Midlands (via Basingstoke and Reading), to the west (via Salisbury) and to destinations along the South coast. On the mainland, there are stations in all the main urban areas, except for Gosport and the Waterside. On the Island there is a single railway connecting Ryde (and its interchange to the Mainland) with Shanklin. The main train operator in the area is South West Trains, with other services being provided by Southern, First Great Western and Cross Country.

Rail freight services are dominated by container movements between the Port of Southampton and the Midlands/ North of England. Rail's modal share of container movements is increasing as a consequence of the recently completed gauge enhancement. There are a number of other rail freight movements within South Hampshire, including aggregates from the Mendips, oil traffic to and from ExxonMobil refinery at Fawley, and services to Marchwood Military Port. A rail freight terminal at Fratton to serve the Port of Portsmouth has recently been established.



There is an extensive network of bus services within and connecting the main urban areas, with less comprehensive and less frequent services to/ from the smaller settlements. Services outside the cities and towns are generally poorly used and often rely upon financial support. This causes accessibility problems. The main bus operators in the area include Go South Coast (Blue Star and Southern Vectis), First, Stagecoach and Black Velvet.

The mainland bus operators within the area have come together to form the South Hampshire Bus Operators' Association (SHBOA), whose primary objective is to act as an interface between the bus industry with Transport for South Hampshire (TfSH). The South Hampshire Bus Operators Agreement was signed between TfSH, Stagecoach, First, Go South Coast and Black Velvet Travel (on behalf of independent operators) in June 2010 and aims to promote modal shift in favour of the bus to support the growth agenda, with the objective of delivering 5% per annum growth in passenger numbers across South Hampshire. The agreement supports the use of partnership based delivery including the use of Punctuality Improvement Partnerships and Quality Bus Partnerships to deliver schemes.

The cross-Solent ports perform a vital function connecting the Island and the mainland. A number of ferry services exist, the most important being those to the Isle of Wight from Portsmouth and Southampton. Over 11 million Passengers use the ferry services to the Isle of Wight each year (including the ferry from Lymington in the New Forest). Connections between Gosport and Portsmouth, Cowes and East Cowes, Hythe and Southampton, amongst others also provide key links in the transport network. These ferries carry over 4 million passengers per year.



3. STUDY APPROACH

3.1 SUMMARY

This section outlines the process by which interventions included within this delivery plan have been identified and assessed. The technical work underpinning scheme identification has been developed in partnership with MVA Consultancy Ltd and managed through the TfSH team. Work by other consultants has also informed this delivery plan, particularly with regard to strategic sites. Whilst the technical work has seen a joint approach, the TDP has been written by TfSH.

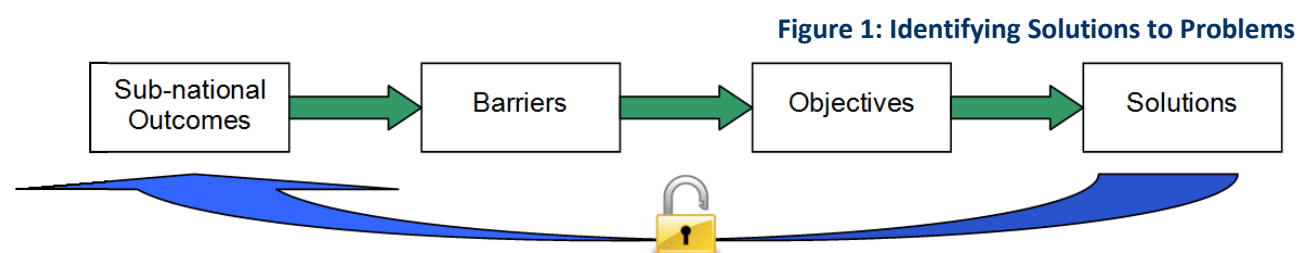
This TDP identifies a set of schemes for the period up to 2026. Schemes not included within this TDP are deemed to not be required before 2026, given current planning assumptions and strategy focus. Section 9.11 identifies schemes that may come forward post 2026.

3.2 IDENTIFYING TRANSPORT SOLUTIONS

The transport interventions included in this plan are informed by technical work that has identified those interventions that respond to evidenced current and future transport constraints, respond to desired Outcomes, and are expected to provide good value for money. The study approach follows the process required by DfT's appraisal guidance known as [WebTAG](#) and includes the following steps:

- Defining a set of **Outcomes** that the strategy will deliver;
- Identification of current and future transport problems or **Barriers**;
- From these, we developed a series of **Objectives**;
- Generation of **Intervention** Options to tackle the Barriers, achieve the Objectives and realise the Outcomes;
- **Sifting** to identify Interventions most likely to be effective and provide value for money; and
- **Review, restructure and develop** the Interventions to form this Transport Delivery Plan.

Central to this process has been the Sub-Regional Transport Model (SRTM), which is summarised in appendix 1. The SRTM has been used to model current travel movements and forecast future transport patterns. In so doing, the SRTM has identified network constraints and provided an understanding of where we need to focus our resources in delivering solutions. The linkages between desired outcomes, barriers, objectives and solutions are represented in figure 1, below.



3.2.1 OUTCOMES

Five Outcomes have been developed through stakeholder consultation and are consistent with national and local policy. The Outcomes, initially identified in the *Urban South Hampshire 2014-19 Delivery Strategy*¹, have been reviewed and refreshed within the context of current policy, and following an engagement workshop in September 2011. These Outcomes are shown Table 1.

¹ The Urban South Hampshire 2014-19 Delivery Strategy was published in May 2010. It identified gaps in evidence and broad level interventions required to realise the sub-national outcomes.

Table 1: Outcomes

Core Outcomes	
O1	Strengthened international gateways, fulfilling their role in supporting the local and national economy.
O2	Delivering planned housing and employment growth in existing economic centres first.
O3	The transport sector contributing to the area achieving its commitment to reduce greenhouse gas emissions (especially Carbon).
Supporting Outcomes	
O4	Reduced social disparities, supporting cohesive and inclusive communities and improving the quality of life for residents.
O5	Delivering continuous economic growth through the implementation of the strategic and major development sites in the region that will ultimately deliver the housing and employment targets.

These Outcomes are the things we want to happen in our area and where transport has a role to play. The outcomes are critical as they provide the context within which the transport Barriers can be identified, which in turn generate Objectives that direct transport solutions.

There is a definite economic imperative to the Outcomes, and their aim is to support our economic assets and facilitate housing, employment and economic growth in a sustainable manner, and in a way that also reduces carbon output. These are covered by the three core Outcomes.

The core Outcomes are supported by two further Outcomes. The first of these seeks to improve the quality of life for residents through, in particular, improving their employment and training opportunities, but also by improving their access to other services. The final Outcome recognises that not all of the significant growth planned for South Hampshire and the Isle of Wight can be delivered on brownfield sites and that strategic employment and housing sites are also planned that will need to be supported by sustainable transport interventions. How these Outcomes map against national and local policy drivers is set out in Table 2.

Table 2: Mapping the Sub-National Outcomes Against National and Local Policy

National	Solent LEP Strategic Priorities	Local Transport Plans*	Sub-National Outcomes
Environment		Policy E: To deliver improvements in air quality Policy H: To promote active travel modes and develop supporting infrastructure Policy L: To work with Local Planning Authorities to integrate planning and transport Policy M: To develop and deliver high-quality public realm improvements Objective C - Protect and enhance the environment and quality of Life Objective E - Reduce the need to travel	O3 - The transport sector contributing to achieving its commitment to reduce greenhouse gas emissions (especially Carbon).
Safety		Policy G: To improve road	

		safety Objective D - Improve road safety and health	
Economy	Enterprise - supporting enterprise, the emergence of new businesses and ensuring the survival and growth of Small to Medium Enterprises (SMEs) in the Solent region Infrastructure Priorities - strong focus on infrastructure priorities including land assets, transport and housing, reducing flood risk and improving access to high speed broadband. Inward Investment - Establishing a single inward investment model to encourage companies to open new sites in the region and to support them with effective marketing is hugely important to us. We fully understand that the Solent's economic geography is interconnected. Skills for Growth - investing in skills to establish a sustainable pattern of growth, ensuring local residents are equipped to take up the new jobs that are created. Strategic Sectors - developing strategic sectors and clusters (interconnected groups and businesses) of marine, aero and defence, advanced manufacturing, engineering, transport and logistics businesses	Policy A: To develop transport improvements that support sustainable economic growth and development within South Hampshire Policy B: Work with the Highways Agency, Network Rail, ports and airport to ensure reliable access to and from South Hampshire's three international gateways for people and freight Policy C: To optimise the capacity of the highway network and improve journey time reliability for all modes Policy D: To achieve and sustain a high-quality, resilient and well-maintained highway network for all Policy F: To develop strategic approaches to management of parking to support sustainable travel and support economic development Policy M: To develop and deliver high-quality public realm improvements Objective A – Enhance and maintain our highway assets Objective B - Maintain and improve journey time reliability and predictability for all road users	O1 - Strengthened international gateways, fulfilling their role in supporting the local and national economy. O2 - Delivering planned housing and employment growth in existing economic centres first. O4 - Reduced social disparities, supporting cohesive and inclusive communities and improving the quality of life for residents. O5 - Delivering continuous economic growth through the implementation of the strategic and major development areas that will ultimately deliver housing and employment targets.
Accessibility	Infrastructure Priorities - strong focus on infrastructure priorities including land assets, transport and housing, reducing flood risk and improving access to high speed broadband.	Policy B: Work with the Highways Agency, Network Rail, ports and airport to ensure reliable access to and from South Hampshire's three international gateways for people and freight Policy I: To encourage private investment in bus, taxi and community transport solutions, and where practical, better infrastructure and services	O1 - Strengthened international gateways, fulfilling their role in supporting the local and national economy. O4 - Reduced social disparities, supporting cohesive and inclusive communities and improving the quality of life for residents.

		Policy J: To further develop the role of water-borne transport within the TfSH area and across the Solent Policy K: To work with rail operators to deliver improvements to station facilities and, where practical, better infrastructure and services for people and freight Objective E - Reduce the need to travel Objective F - Promote travel choice	
Integration	Infrastructure Priorities - strong focus on infrastructure priorities including land assets, transport and housing, reducing flood risk and improving access to high speed broadband. Skills for Growth - investing in skills to establish a sustainable pattern of growth, ensuring local residents are equipped to take up the new jobs that are created.	Policy B: Work with the Highways Agency, Network Rail, ports and airport to ensure reliable access to and from South Hampshire's three international gateways for people and freight Policy H: To promote active travel modes and develop supporting infrastructure Policy K: To work with rail operators to deliver improvements to station facilities and, where practical, better infrastructure and Objective F - Promote travel choice	O4 - Reduced social disparities, supporting cohesive and inclusive communities and improving the quality of life for residents.

* South Hampshire Strategy Policies in *blue*; IoW LTP Objectives in *green*

The mapping against national and local policy drivers demonstrates a high level of consistency, in particular, with regard to economic priorities. There is a strong match between the Solent LEP strategic priorities and the TDP Outcomes. Safety is not identified explicitly within the Outcomes, but is implicit in all that we do.

3.2.2 BARRIERS

[Report 6](#) considered the current and future transport situation in the light of the local economic, environmental and social context. This is summarised in section 4 of this plan. The review has provided the background to the key transport barriers that exist within South Hampshire and the Isle of Wight. These Barriers are presented in Table 6 in section 5, and, in accordance with WebTAG Unit 2.1 (December 2004 draft), they emerge from:

- current transport-related problems
- future transport-related problems
- underlying causes.

3.2.3 OBJECTIVES

Objectives play a crucial role in the appraisal process as they ultimately direct and make sure that the preferred interventions identified in the appraisal process make a positive contribution to solving the problems and issues identified within the transport system (under a do-minimum scenario). Table 3 Lists the Objectives for the TDP. Again, like the Outcomes, the Objectives have a clear economic focus.

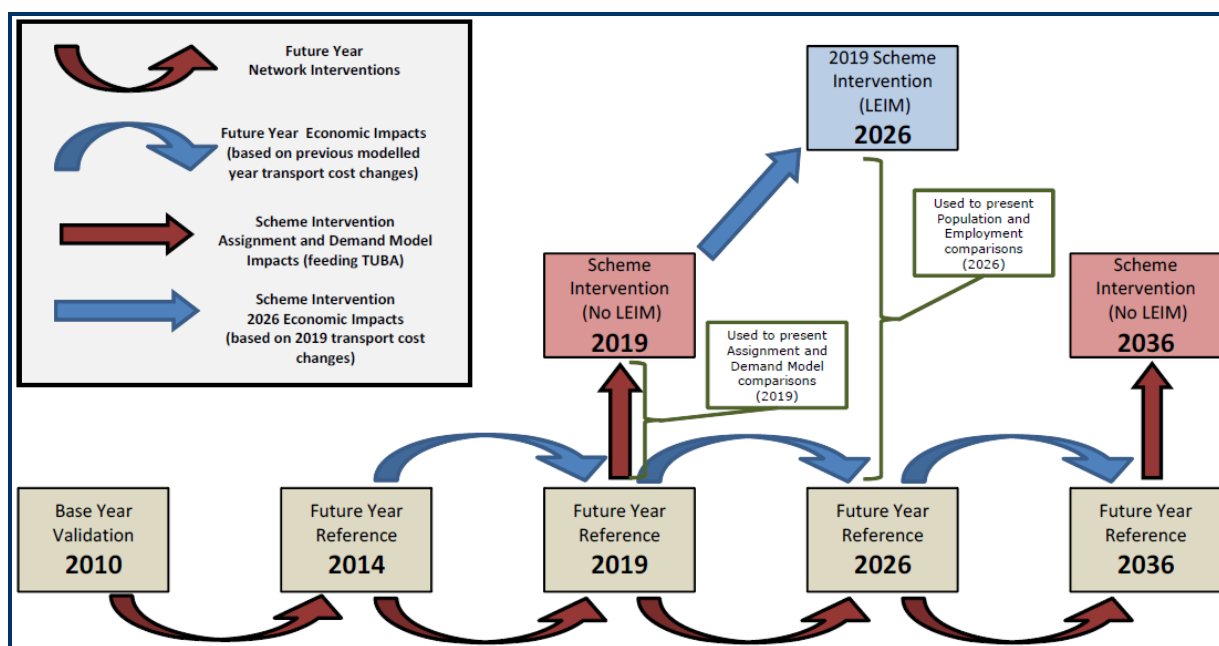
Table 3: Objectives

Objective
Enable higher levels of economic growth by improving local employment opportunities, deepening the labour market and therefore increasing productivity
Enhance business performance particularly at the international gateways, by increasing the efficiency of the transport network and managing congestion
Improve sustainable access linking people to jobs and key facilities in our cities and towns
Reduce emissions (particularly carbon) from the transport sector by reducing highway vehicle kilometres
Reduce unemployment in areas of high deprivation through improved sustainable access to employment centres

3.3 SRTM APPLICATION

As outlined above, the SRTM has played a crucial role in providing the objective evidence of the performance of the transport network now and in the future. Figure 2 presents the approach taken when applying the SRTM to assessed schemes. Variations on this have been used for specialist applications for urban realm as well as for the Local Sustainable Transport Fund (LSTF) tests, where behavioural changes were included in the process. Runs of the Local Economic Impact Model (LEIM) have also been used to assess population and job impacts. It should be noted that not all schemes included within this TDP have been assessed at this stage and in all cases, more detailed work is required or is already underway. Where assessment has taken place, the results – along with other factors (such as fit with approach and unintended consequences) – have informed our view on their inclusion within the TDP.

Figure 2: Approach Taken When Applying the SRTM to Assessment



Source: MVA, 2012

In all assessed cases however, forecasts with fixed overall land-use assumptions are required for a compliant Transport User Benefit Analysis (TUBA) to be undertaken. These tests are represented by the red boxes in the diagram that utilise the land use data (in terms of population and employment) established in one of the fully run Future Year Reference Case scenarios. The scheme intervention tests are conducted for both 2019 and 2036 in order to gain a profile of the impacts. Schemes have been tested over the same common timeframe to allow comparable assessments regardless of when they are currently expected to be delivered. For consistency, interventions are assessed on the basis of being built after 2014 but being fully in place before 2019 – even though this will not be the case.

Future Year Reference Case Scenarios have been run with both the impacts of committed transport interventions and LEIM land-use changes.



Reference Cases

Future Year Reference Case Scenarios represent a *Do-Minimum* scenario where we introduce nothing more than those already committed schemes. Clearly this is a future situation we hope never to realise, and so represents a *worst-case* scenario. Where schemes are considered they represent a Do-Something future scenario (i.e. where a scheme or schemes has been introduced to improve the transport situation).

The blue box represents the SRTM application whereby the changes in generalised costs for the highway and public transport assignment models in 2019 are used to generate changes in economic activity in the years 2019 to 2026. The 2026 population and employment situation can then be compared for any *Do-Something* versus the appropriate *Do Minimum*.

Differences between the Do Minimum and Do Something scenarios feed TUBA inputs to allow

benefit/dis-benefit streams to be calculated. They also provide the standard set of network and demand statistics used to inform scheme analysis.

3.4 SCHEME COSTS

For assessment purposes, indicative scheme costs have been obtained from a range of different sources and appropriate levels of optimism bias have been factored in.

3.5 MEASURING IMPACT

The performance of the assessed transport schemes presented in this plan has used a range of indicators which are, as far as possible, quantified using SRTM outputs including:

- Transport demand statistics;
- Economic appraisal; and
- Land-use and environmental impacts.

The assessment is also informed by wider appraisals contributing to indicative value for money assessments. Metrics have been used to summarise scheme performance against a range of Objective-led specific Key Performance Indicators (KPIs), shown in appendix 2.

In most cases the indicators that make up the KPIs are weighted according to their contribution to that KPI, for example, the primary indicator in the Economic Growth KPIs is the growth in jobs so this has an 80% weighting and each of the other indicators within that KPI are given a 5% weighting. For the third and fourth KPIs, an average of the minimum and maximum values for each indicator has been used. Shaded entries indicate that a reduction of the measure is beneficial as opposed to scheme benefits being linked to measure increases

Optimism Bias

In appraisals there is always likely to be some difference between what is expected and what eventually happens. Several studies have indicated that scheme cost estimates tend to underestimate costs and delivery times and overestimate benefits and revenue streams. As noted by HM Treasury (2003), this is usually due to biases unwittingly inherent in the appraisal, and risks and uncertainties that materialise in the course of the project.



3.6 CONSULTATION

Consultation has been an important part of this process, providing an opportunity to validate model output, generate options and review proposals. Several consultation events have taken place in accordance with WebTAG advice. These steps are set out in table 4, below.

Table 4: Consultation Steps

Date	Event and Range of Stakeholders	Purpose	Resources
23-02-11	Presentation to the Partnership for Urban South Hampshire (PUSH) Planning Officer Group	• Introduction to the SRTM and its capabilities and how it would be used to support the development of TDP	• N/A
16-06-11	Local Transport Authority Option generation workshop	• To identify options to the current and future transport problems identified	• N/A
26-07-11	Presentation to Solent LEP Board	• To inform the LEP Board of the TDP project • To present model output on current and future transport problems • To validate model output • To provide the LEP Board with an opportunity to identify transport problems and consider solutions	• N/A
30-08-11	Presentation to the Partnership for Urban South Hampshire (PUSH) Planning Officer Group	• To inform PUSH officers of the TDP project • To present model output on current and future transport problems • To validate model output • To provide PUSH officers with an opportunity to identify transport problems and consider solutions • To inform the PUSH Spatial Strategy Review	• N/A
06-09-11	Initial stakeholder workshop (<i>Business, Health, Districts</i>)	• To inform stakeholders of the TDP project • To present model output on current and future transport problems • To validate model output • To provide stakeholders with an opportunity to identify transport problems and consider solutions	• Workshop background note • Summary of stakeholder comments
04-11-11	Local Transport Authority Scheme Sift	• Review of initial list of options generated against sifting criteria	• N/A
10-07-12	Transport Steering Group (<i>DfT, HA, Network Rail</i>)	• Initial presentation of delivery approach and scheme appraisal results	• Workshop background note
28-09-12	Presentation to Solent LEP Board	• Presentation of delivery approach and scheme appraisal results	• Workshop background note
09-10-12	Transport Stakeholder Workshop (<i>HA, Network Rail, Bus, Rail, Ferry Operators</i>)	• Presentation of delivery approach and scheme appraisal results • Opportunity to validate approach and scheme assessment • Opportunity to identify 'missing' solutions	• Workshop background note
10-10-12	Final stakeholder workshop (<i>Business, Health, Districts</i>)	• Presentation of delivery approach and scheme appraisal results • Opportunity to validate approach and scheme assessment • Opportunity to identify 'missing' solutions	• Workshop background note • Summary of stakeholder comments

3.6.1 CONSULTATION ON DRAFT TDP

A final focussed consultation stage is taking place on this Consultation Draft of the TDP. The consultation period will run from 14th December 2012 until 14th January 2013. Whilst it is recognised that this is a short consultation period (and includes the Christmas and New Year period), it does follow on from recent

consultation events (included in table 4) in which views were invited on the current and future transport problems and the emerging transport solutions.

4. SUMMARY OF CURRENT & FUTURE FORECAST TRANSPORT SITUATION

4.1 SUMMARY

This section provides a summary of the current and future forecast transport constraints that have been identified by the SRTM and validated through consultation. The base year for the current situation is 2010. The future transport situation is shown for 2014, 2019, 2026, and in some instances 2036, with the data sources from the SRTM (unless otherwise stated). This section does not include a review of the current and future forecast transport situation on the Isle of Wight, although cross-Solent movements are considered. A detailed review is provided in [Report 6](#).

4.2 CURRENT TRANSPORT SITUATION (2010 BASE)

Just over 3.2 million person trips starting and/or finishing in the mainland area are made across all modes each day, with just under 2.8 million of these contained within the mainland TfSH area. The majority of these trips (70%) are made by mechanised modes, of which most are by car. Table 5 summarises mode share, and how it varies by time of day.

Table 5: Summary of Total Travel Demand (trips per day) by Mode Starting and/ or Finishing in the Mainland TfSH Area

Mode	AM 0700-1000	*IP 1000-1600	PM 1600-1900	1900-0700	All Day
Highway	401,528	895,367	513,128	459,435	2,269,457
Public Transport	34,388	63,720	32,599	20,148	150,856
Active Modes	161,578	354,363	145,037	140,220	801,197
Total	597,494	1,313,450	690,764	619,802	3,221,510

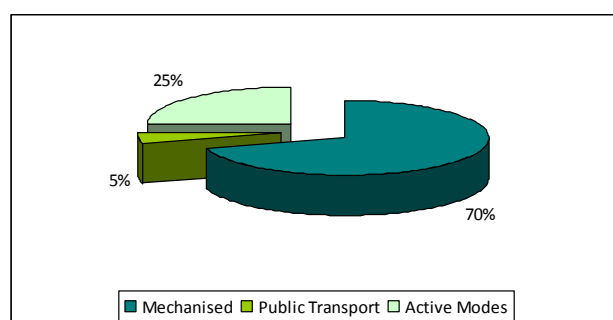
IP = Inter-Peak

The extent to which mechanised modes dominate travel in the area is immediately apparent in figure 3.

Portsmouth (33%), Southampton (32%) and Gosport (37%) have particularly high levels of active mode use, whilst public transport use is also highest in Southampton (7%). The more rural districts only partly within the TfSH area have the highest level of car use (e.g. East Hants at 85%).

Despite the large mode share for active modes for all trips, their share of journey to work trips is far lower. Figure 4 shows the mode share for journey to work at the 2001 census. The

Figure 3: Overall Mode Share of Trips Starting and/ or Finishing in South Hampshire (2010)



dominance of the car for such trips is clear (59.9%), although walking (10.6%) and cycling (4.6%) combined (15.2%), make up the second largest segment. The proportion of people working from home is likely to have risen since 2001, and the results of the 2011 census are expected to confirm this.



Active Modes

The term Active Modes, refers to cycling and walking.

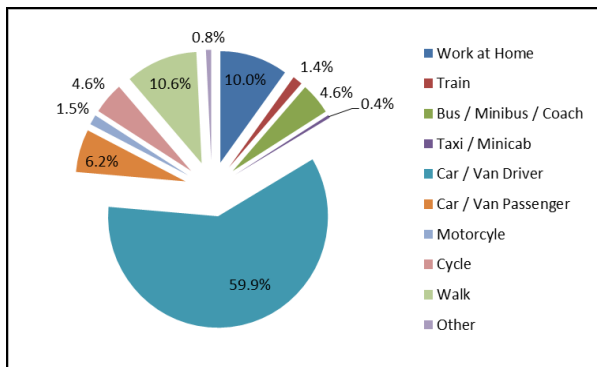
4.2.1 MECHANISED TRAVEL

Almost 5.5m vehicle kilometres are travelled each day within South Hampshire (12 hour period²), with the average trip length of these journeys just over 21km's. The volume of vehicular traffic on our roads is

² 12 Hour period is 0700-1900

increasing journey times and delays. Figure 5 shows the total number of vehicle hours spent on our highway network in each period each day, split between Link Cruise Time (free flow conditions), Transient Queues (Time spent waiting for the next green light), and Over Capacity Queues (Where delay lasts more than one traffic signal cycle). A significant proportion of vehicle journey time is spent in queues, particularly in the two peaks. This has negative implications for productivity and carbon reduction.

Figure 4: Journey to Work Mode Share (2001 Census) in South Hampshire



Availability of a car for journeys is high amongst South Hampshire's residents, with 48.4% of people having full access to a car. 43.1% share access to a car, whilst just 8.6% of residents do not have access to a car.

The highway network is dominated by the M27, which, whilst a strategic road, performs an important local distributor function. Evidence of the latter is shown in figure 6, which shows the number of junctions travelled by traffic on the M27. 30% of all traffic travel between 1 and 2 junctions, with over 50% travelling between 1 and 4 junctions. The largest

single proportion of all traffic travels only 1 junction on the motorway (15.5%).

Examination of the highway trip length distribution for the area shows that short trips make up a sizeable proportion of highway network demand, with 38% of all internal car trips within the mainland area less than 5km in length, whilst this rises to 56% from the most densely populated areas (defined as zones with more than 6,000 persons per sq km).

Figure 5: Daily (12 hr) Vehicle Hours Spent on the Highway Network (HA and Local)

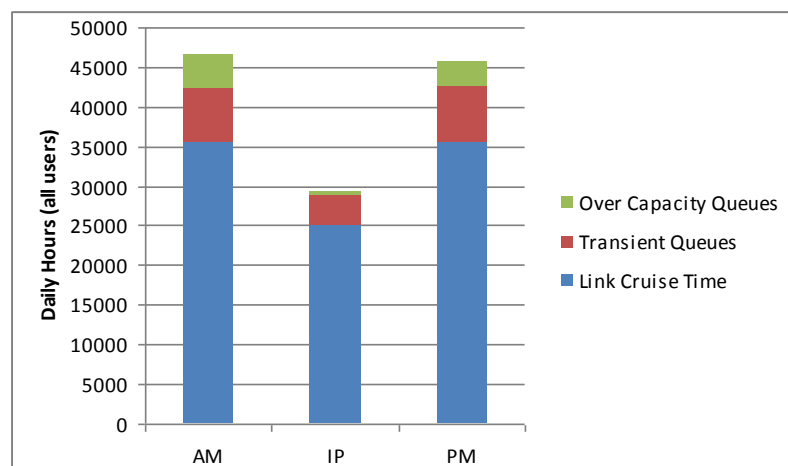
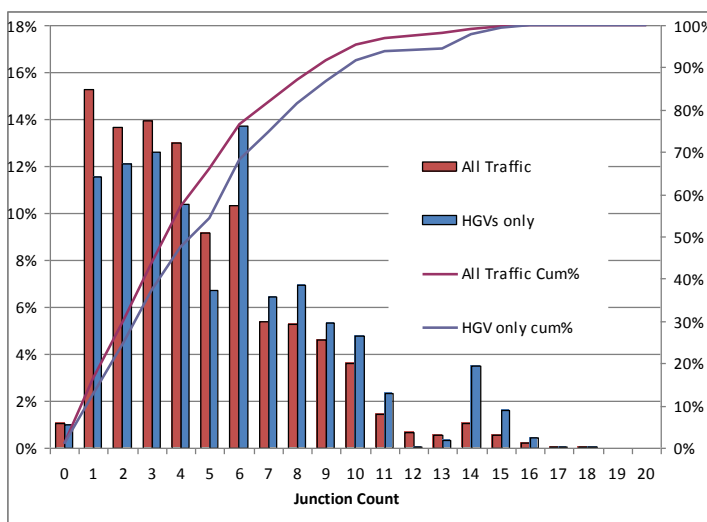


Figure 6: Number of Junctions Travelled by Traffic on the M27



Continued use of valuable road space for short trips is a major barrier to sustainable economic development in South Hampshire as it will adversely affect all trips using the network, including the strategically important movements to the international gateways and economic centers. There is an opportunity for these short vehicular trips to migrate to public transport and active modes.

4.2.2 PUBLIC TRANSPORT

62,646 public transport boardings take place in the mainland TfSH area each day (12 hour period). The split by time period and public transport mode is shown in

figure 7 and shows that the majority of public transport use is undertaken in the two peaks, primarily for journeys to work and education.

Figure 8 shows sections of the public transport network where bus speeds are less than 10km/h in the western and eastern parts of the TfSH area.

Public transport use varies by area in accordance with network provision. Network provision tends to be highest in the more urban areas, particularly within the two cities (e.g. 38,086 daily boardings) in Southampton).

Figure 7: Public Transport Daily Boardings (12 hour period) by Period and Mode

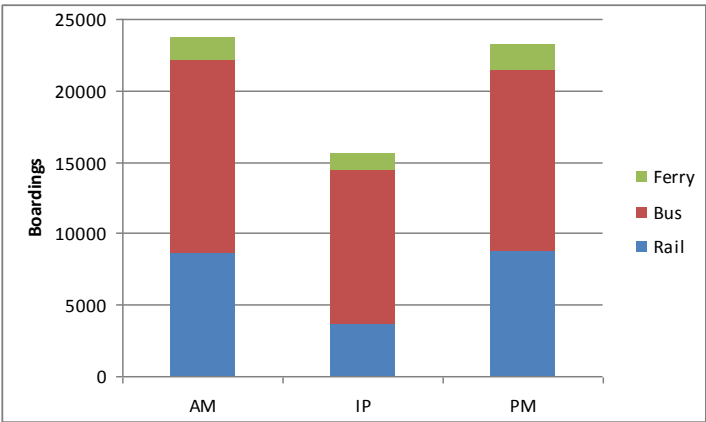
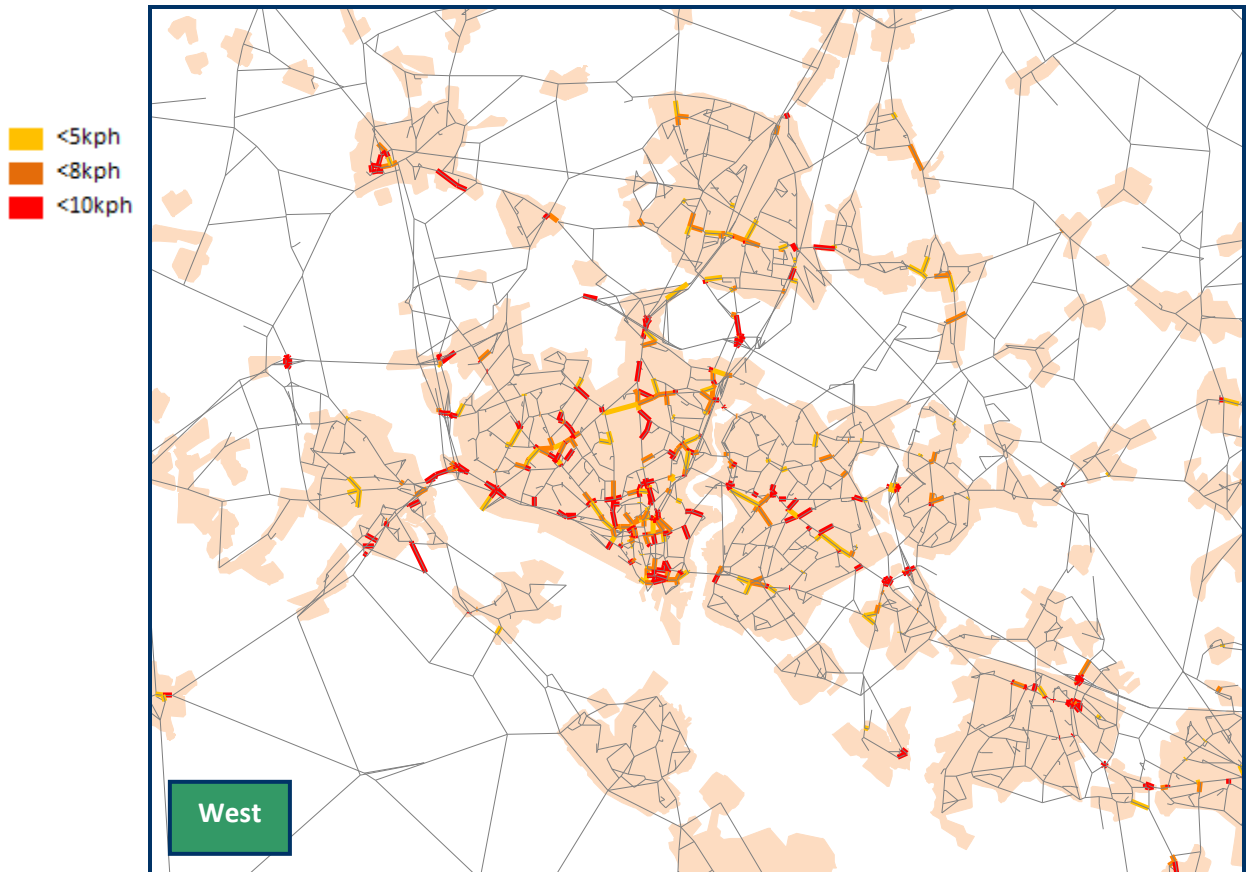
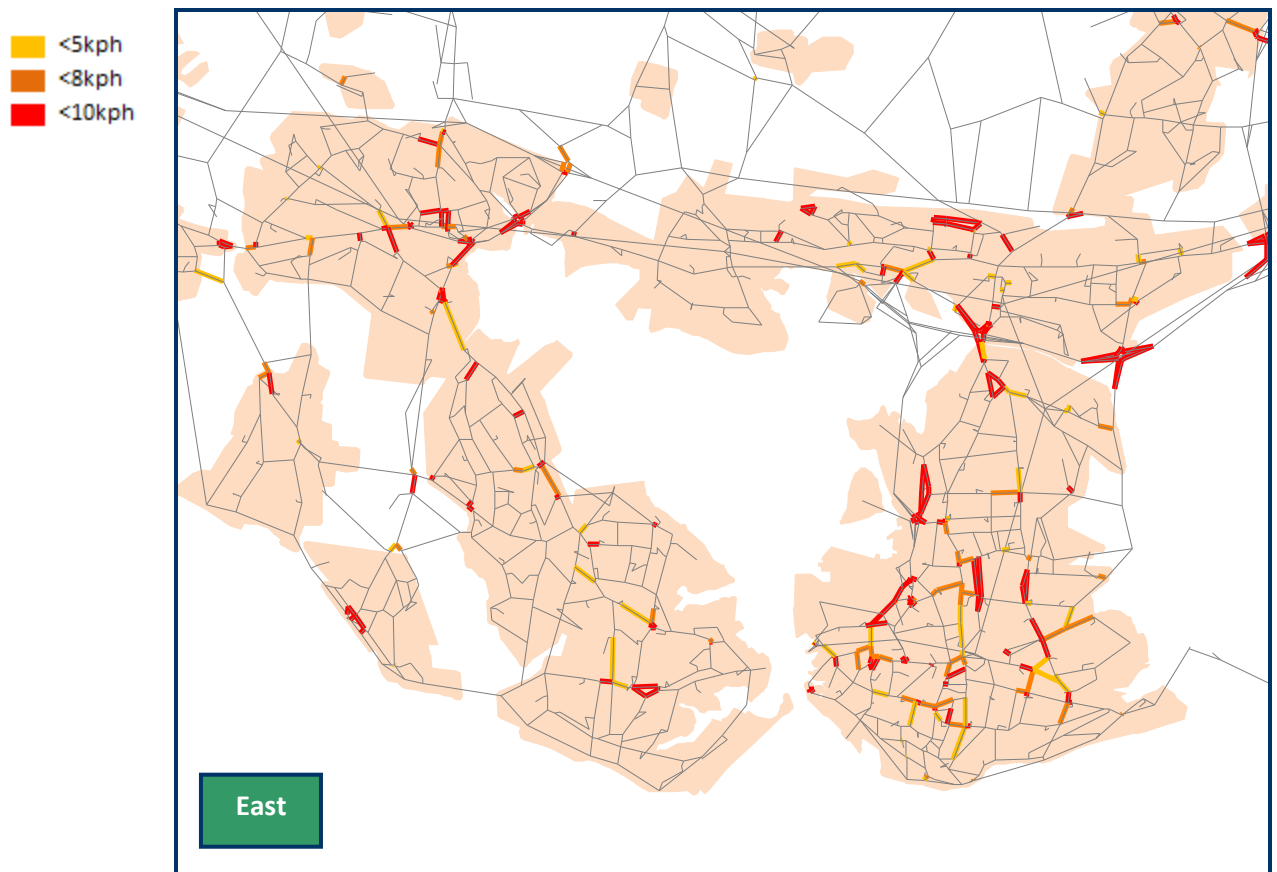


Figure 8: Sections of the Public Transport Network Where Bus Speeds are Less Than 10kph (2010)

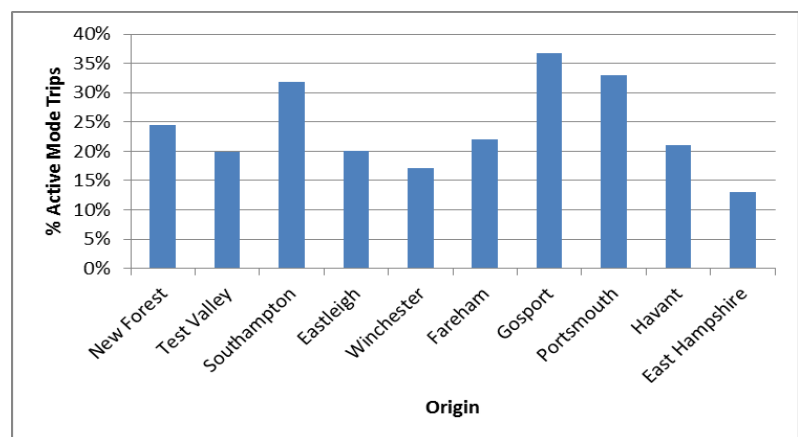




4.2.3 ACTIVE MODES

As shown above, active modes account for 25% of all daily trips within the TfSH area. The use of active modes varies by area, with Southampton, Portsmouth and Gosport having particularly high proportions. Figure 9 shows active mode trips as a proportion of all trips by authority area. This shows that the two cities have high levels of active mode use, although Gosport has the highest active mode use in the TfSH area. It's low-lying geography and dense population assists active mode use and presents an opportunity for further growth in this sector.

Figure 9: Active Mode Trips as a Proportion of all Trips by Origin

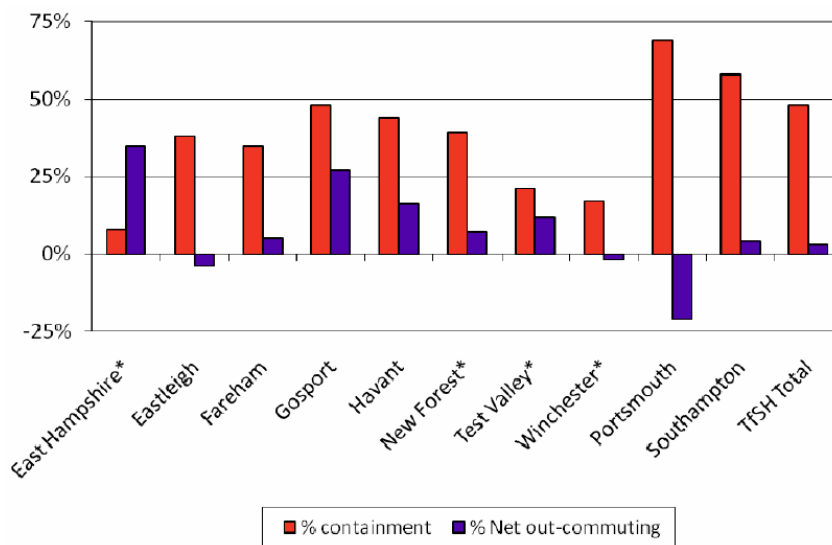


As expected the vast majority of trips by active modes are short in length, with active mode trip length being broadly similar irrespective of area density type; although a higher volume of active mode trips are undertaken in the more densely populated areas.

4.2.4 COMMUTING PATTERNS AND CONTAINMENT

A substantial proportion of the demand for travel is for journeys to work. The relative locations of population and employment will clearly impact on how far people have to travel to work and how they travel.

Figure 10: Level of Containment and Out-Commuting by District



* Part districts

In areas that are more self-contained, trip lengths will tend to be shorter and patterns of travel therefore more sustainable.

The level of containment (defined as commuting trips internal to the district divided by the total trips generated by the district) and out-commuting by district is shown in figure 10. Unsurprisingly, the cities have the highest levels of containment, whilst at the other extreme, segments of East Hampshire, Test Valley and Winchester

that are within the TfSH area are the least contained, being the most outlying areas with lower densities of employment.

Only Portsmouth, Eastleigh and the parts of Winchester in the TfSH area are net importers of labour. Southampton's status as a net exporter of labour may initially be surprising, but relates to it having a fairly large district area including a number of large residential areas. The city center area itself is a net importer.

While Gosport's level of containment is the highest (outside of the two cities), it is one of the largest net exporters of labour in percentage terms, reflecting the decline in employment opportunities in this area. This high level of movement away from the peninsula places significant pressure on the road network. New employment development such as at the Solent Enterprise Zone are intended to reverse this trend, increase containment and hence reduce pressure on the road network.

There is a close relationship between containment levels and mode of travel, because as journeys become longer the car is more likely to be used. The areas that have low levels of containment (parts of East Hampshire, Test Valley and Winchester) also have the highest proportion of trips made by car, whereas car use is lowest in the cities where the denser population and more extensive public transport networks (and comparable speeds and costs to the private car) mean that public transport and active modes are more likely to be viable options.

The urban areas of Havant, Eastleigh and Fareham have high overall trip rates, and generate a similar number of car trips per person to the areas with low containment. Gosport however has the lowest car trip rate which is due to the limited accessibility on the Gosport peninsula and relatively low incomes.

A more detailed analysis of interactions between areas is provided in figure 11, which shows an analysis of AM commuting patterns across all modes between and within districts (Rows = origins and Columns = destinations). The largest commuter flows in the table are highlighted in yellow (1,000-2,499 trips per day) and orange (over 2,500 trips per day). 'Rest' indicates trips to and from outside the core mainland TfSH area, including commuting to and from London.

Figure 11: Analysis of AM Commuting Patterns Across all Modes Between and Within Districts*

All Modes			East Hampshire	Eastleigh	Fareham	Gosport	Havant	New Forest	Test Valley	Winchester	Portsmouth	Southampton	Rest	Internal	Out-commute	Total
East Hampshire	1		2123	207	371	68	1196	57	52	337	1110	166	755	2123	4321	6443
Eastleigh	2		129	9351	1104	127	632	1025	1231	2784	833	5414	1875	9351	15155	24506
Fareham	3		223	1517	7761	2859	1288	382	322	2264	3286	846	1258	7761	14246	22007
Gosport	4		82	234	4376	7524	306	88	69	660	1712	108	604	7524	8237	15761
Havant	5		1537	687	1362	175	11218	198	175	871	6039	463	2854	11218	14363	25580
New Forest	6		43	1257	449	71	272	10509	694	1505	436	2993	2421	10509	10142	20651
Test Valley	7		23	1680	231	35	135	905	3031	819	239	2184	1323	3031	7573	10604
Winchester	8		170	1491	1247	259	1053	661	412	7507	1416	1795	2161	7507	10665	18172
Portsmouth	9		769	550	2015	740	3694	196	160	1166	26224	375	2315	26224	11980	38203
Southampton	10		101	7491	949	52	313	3051	1471	2359	686	26138	2642	26138	19114	46263
Rest	11		416	1171	754	329	1499	2072	879	2162	2555	3184	52533	52533	15021	67554
Internal			2123	9351	7761	7524	11218	10509	3031	7507	26224	26138	52533			163918
Out-commute			3493	16285	12858	4716	10388	8634	5464	14927	18312	17527	18210			130815
Total			5616	25636	20619	12239	21606	19143	8495	22434	44536	43665	70743	163918	130815	294733

*Rows = Origins and Columns = Destinations

Key

Green	less than 1000 trips per day
Yellow	1000 – 2499 trips per day
Orange	over 2500 trips per day

All coloured districts are within the Mainland TfSH area, 'Rest' = those trips to and from outside the Mainland TfSH Area, including

commuting trips to/from London.

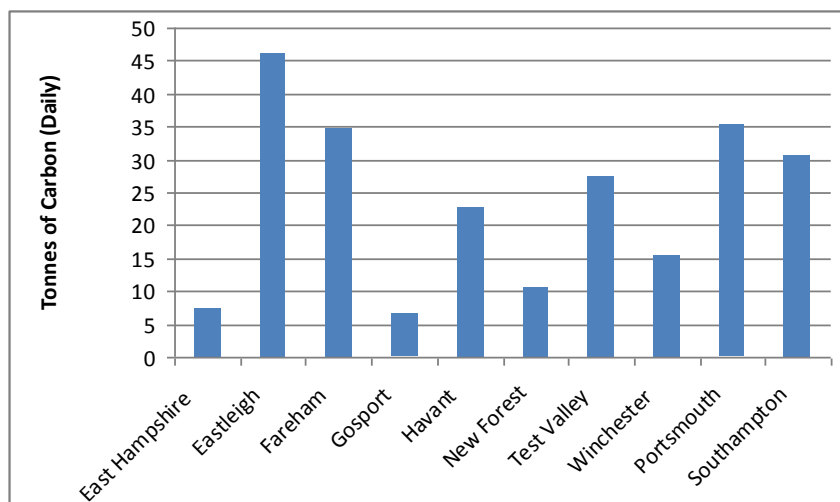
Apart from the AM trips contained within a district, the key corridors are as follows:

1. Eastleigh to Southampton (both ways)
2. Havant to Portsmouth (both ways)
3. Gosport to Fareham (both ways)
4. Fareham to Portsmouth (one way)
5. External of TfSH to Southampton (both ways)
6. New Forest to Southampton (both ways)
7. Havant to External of TfSH (one way)
8. Eastleigh to Winchester (Core) (one way)
9. External of TfSH to Portsmouth (one way)

4.2.5 CARBON

236.5 Tonnes of carbon are emitted from the transport sector each day in the AM peak in South Hampshire. How this is split by authority area is shown in figure 12. This shows that the two cities, Eastleigh, Portsmouth and Fareham are responsible for the highest levels of carbon output. Levels in Eastleigh and Fareham are likely to be influenced by the motorways.

Figure 12: Tonnes of Carbon from Transport Sources by District (AM Peak)



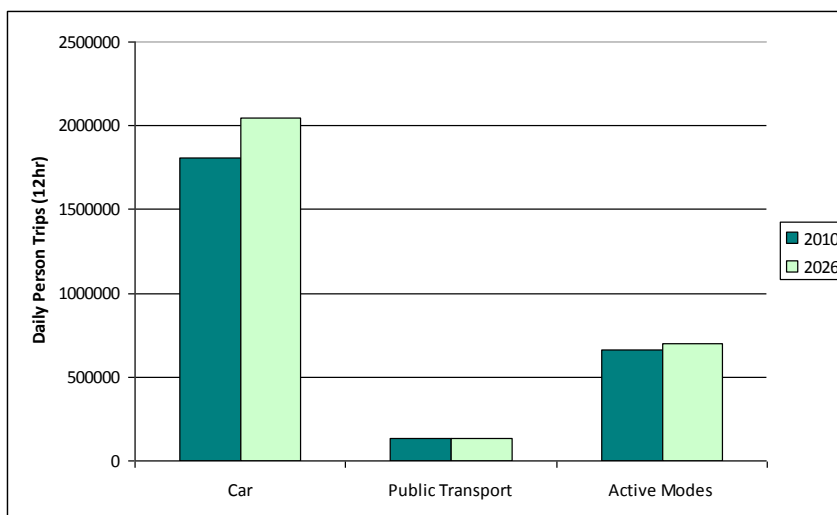
4.3 FUTURE TRANSPORT SITUATION

Figure 13 shows the forecast change in total trips to/ from or within the mainland TfSH area across all modes between 2010-26. This shows that total trips increase across all modes and within each mode. The growth in trips by car between 2010 and 2026 is 13%, whilst the growth for public transport is 3% and for active modes it is 5%. Total trips increase by 11%. The relative proportion of trips by each mode to total trips remains largely unchanged.

Our modelling capability enables us to forecast the change in demand across all modes. We have established four future forecast year reference cases (2014, 2019, 2026, and 2036), which provide us with the ability to identify future transport barriers to sustainable economic growth. Importantly, the future reference cases **assume no improvements to the transport system** other than those already committed.



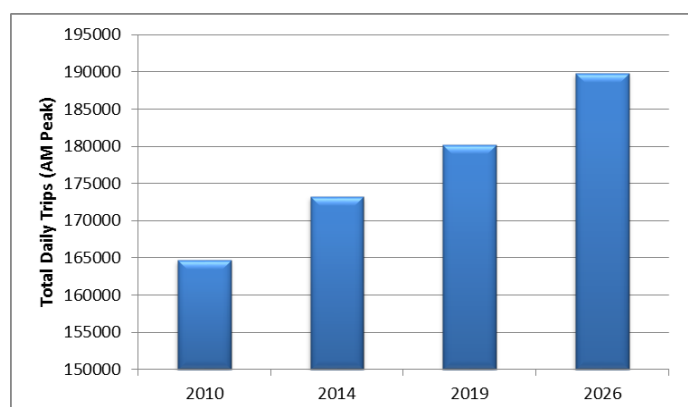
Figure 13: Change in Total Trips to/ from or Within the TfSH area by Mode (2010 – 2026)



4.3.1 MECHANISED MODES

Total vehicles (expressed as Passenger Car Units - PCUs) on the highway network within the area are forecast to grow by 15% between 2010 and 2026. The growth by reference case year up to 2026 in the AM peak is shown in figure 14. Total vehicle kilometres are forecast to grow by 17% between 2010 and 2026. These forecasts demonstrate that, on average, trip lengths will also increase between 2010 and 2026.

Figure 14: Growth in Total Daily PCU Trips in the AM Peak

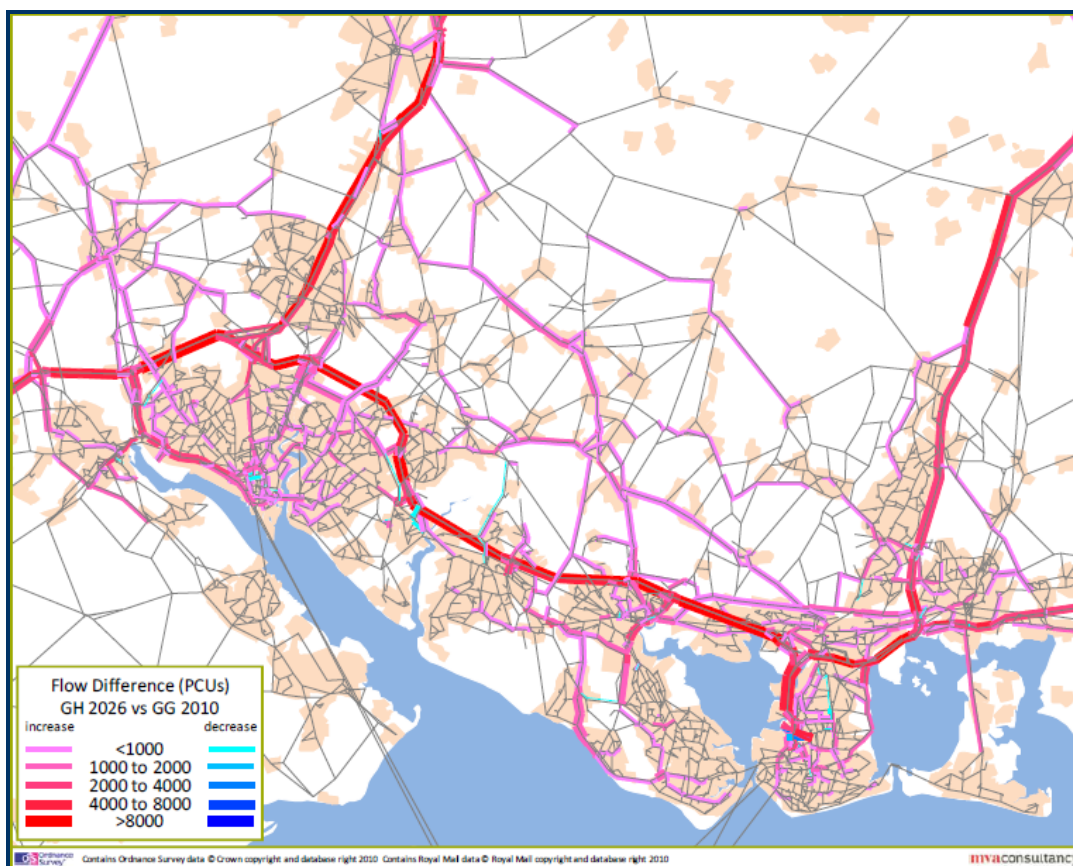


Passenger Car Unit (PCU)

PCU is a vehicle unit used for expressing highway capacity. One car is considered a single unit, whilst a cycle or motorcycle is each considered as half car unit. A bus, truck etc is considered equivalent to 3 cars or 3 PCU.

Figure 15 shows the forecast change in highway flows in the AM peak between 2010 and 2026 in South Hampshire. Red denotes increased flows and blue denotes a decrease. Increased demand for the highway network dominates, and is particularly concentrated on the M27, M3 and A3(M), but also on radial routes into Southampton, Gosport and Portsmouth.

Figure 15: Forecast Change in Highway Flows in the AM Peak (2010-26) in South Hampshire



The volume of vehicular traffic on our roads is forecast to cause worsening journey times and delays. Figure 16 shows the forecast total number of vehicle hours spent on our highway network in each period each day, split between Link Cruise Time (free flow conditions), Transient Queues (Time spent waiting for the next green light), and Over Capacity Queues (Where delay lasts more than one traffic signal cycle). This has negative implications for productivity and carbon.

Vehicle time spent in queues is forecast to increase by 53% over the busiest 12 hour period in the mainland TfSH area between 2010-26. Time spent in over-capacity queues is forecast to increase by 78% in the AM peak, more than doubles in the PM peak (112%) and almost trebles in the inter-peak (189%).

Figure 16: Total Number of Daily Vehicle Hours Spent on TfSH Highway Network by Period

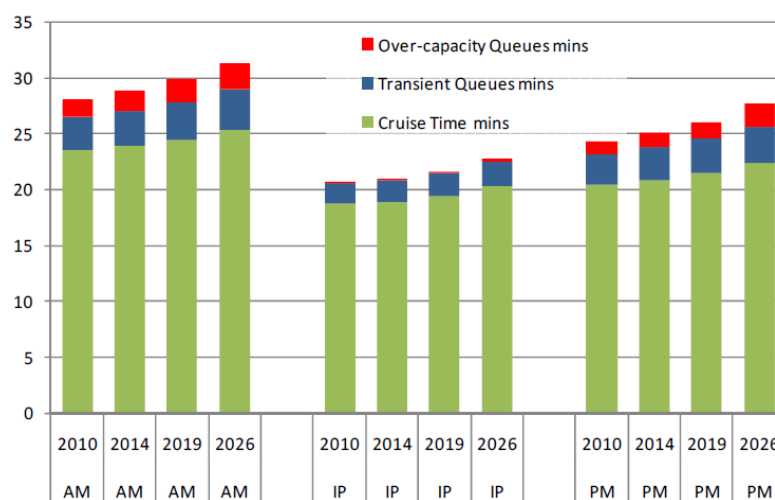
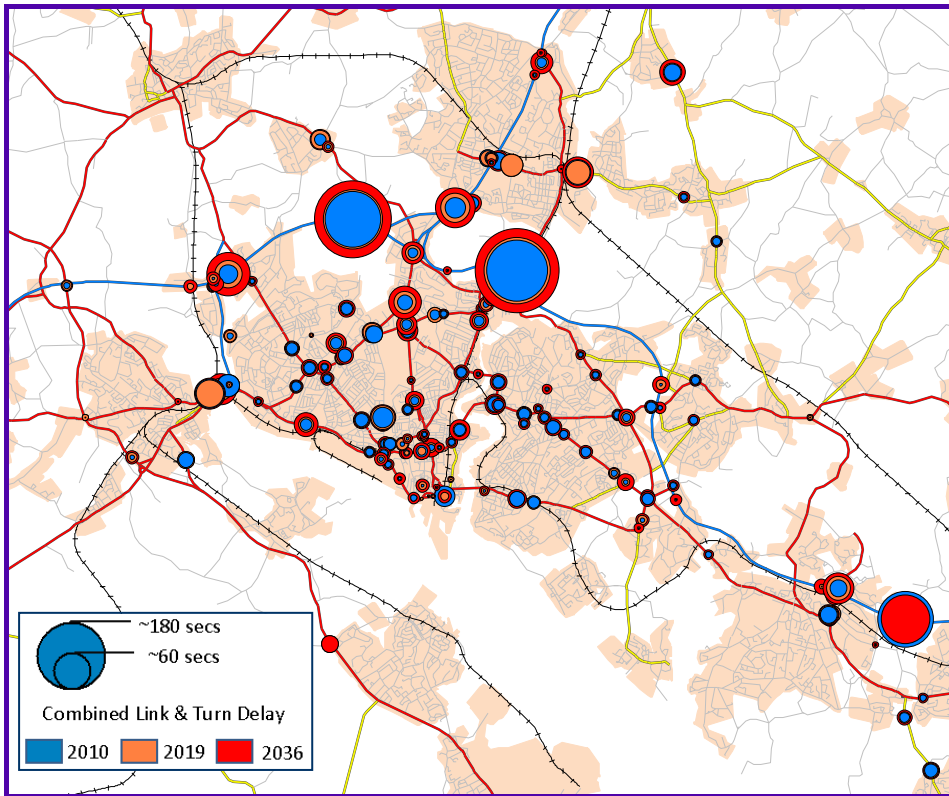


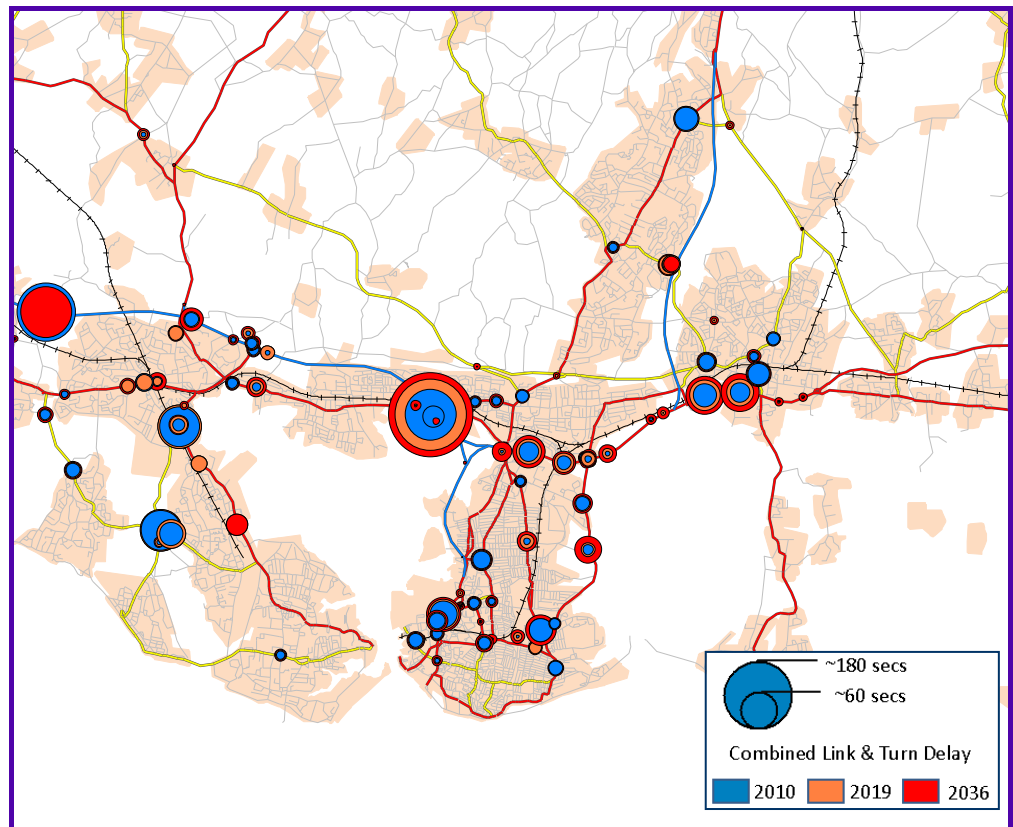
Figure 17: Total AM Peak Delay for Each PCU in 2010, 2019 and 2026 (West)



These increases in delays as a result of increased demand for a finite highway capacity are forecast to result in reductions to highway journey times (for all mechanised modes). Delays are forecast to be greatest on the M3 and M27 and also on the radial routes into our cities, across all time periods. The total junction delay (i.e. the delay in time to each PCU) in the AM peak is shown for the western part of the TfSH area (Fig. 17) and for the eastern part of the area (Fig. 18) for 2010, 2019, and 2026. These show existing delays are forecast to increase

with additional junctions also coming under stress. Delays at junctions along a route may affect the side roads more than the through route.

Figure 18: Total AM Peak Delay for Each PCU in 2010, 2019 and 2026 (East)

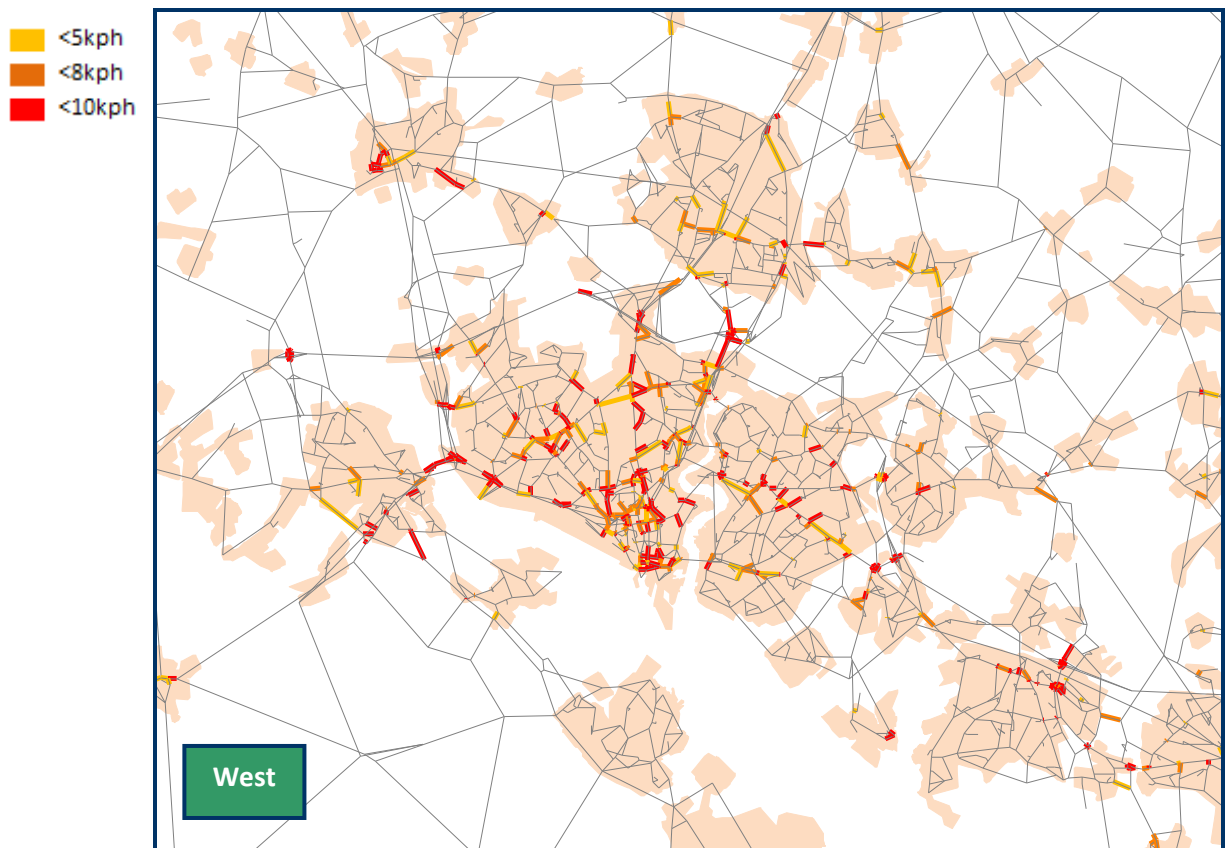


4.3.2 PUBLIC TRANSPORT

Overall demand for public transport is forecast to increase by just 3% across the 12 hour period (0700 – 1900) between in 2010 and 2026. This is extremely low and is partly a consequence of increased competition for limited highway capacity and the associated increasing delays impacting on the relative attractiveness of buses. When public transport use is disaggregated by mode we can see that the overall growth hides a fall in bus use. Daily AM peak boardings by public transport mode for the period 2010-26 shows an increase in rail (9%) and in ferry (1%) boardings, but a 1% fall in bus use.

Figure 19 shows sections of the public transport network where bus speeds are less than 10km/h in the western and eastern parts of the TfSH area, in 2019. When compared with figure 9, the incidences of bus delays on the network can be seen to increase, particularly on the radial routes into our cities.

Figure 19: Sections of the Public Transport Network Where Bus Speeds are Less Than 10kph (2019)



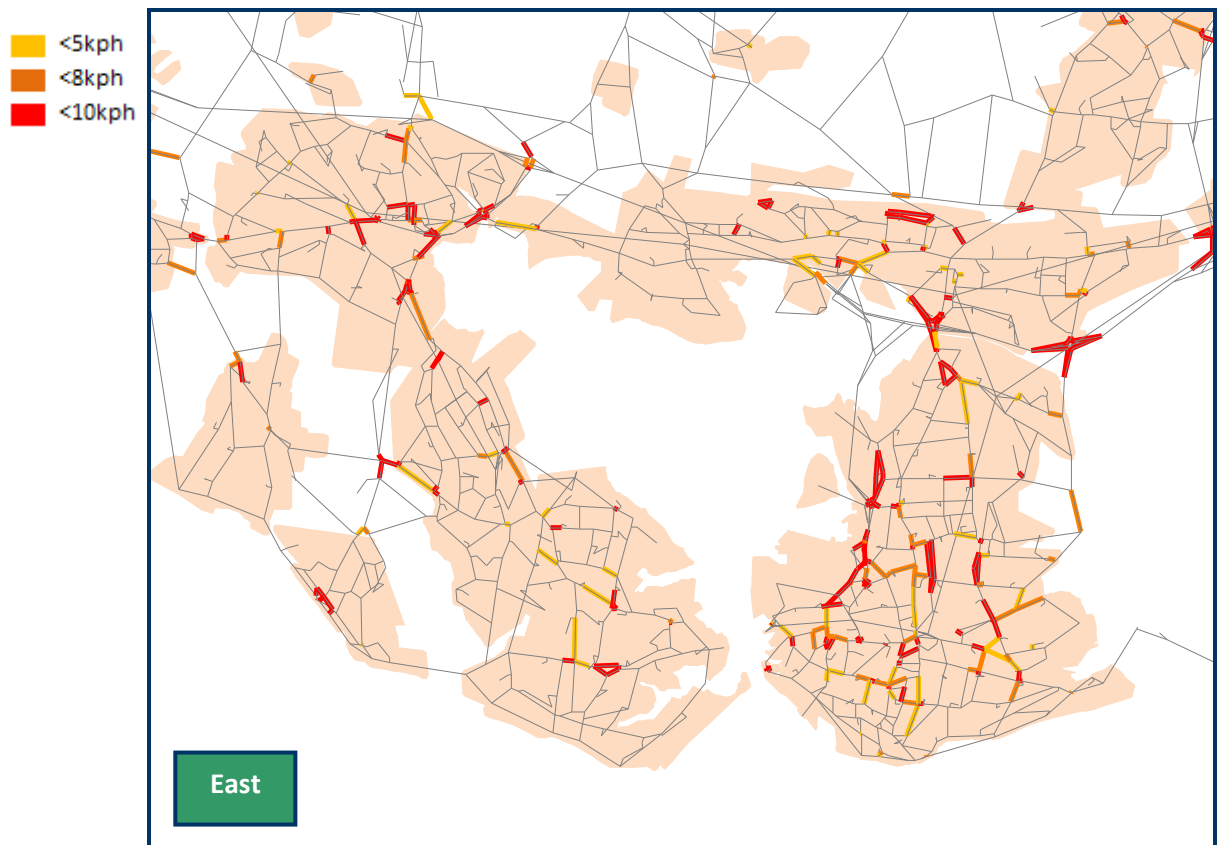
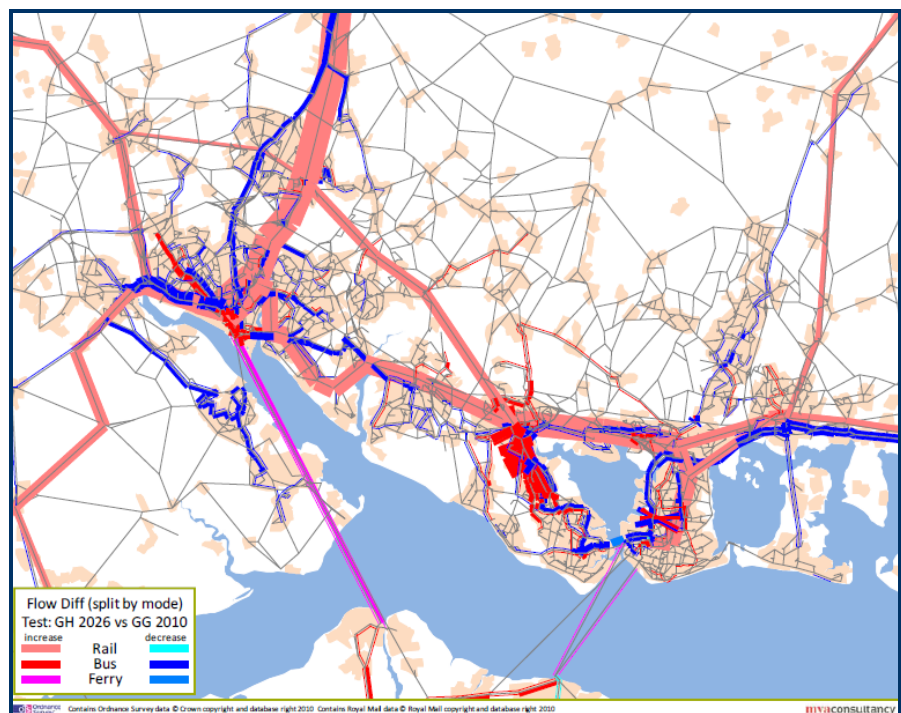


Figure 20: Public Transport Flows Across the TfSH Area Between 2010-26 in the AM Peak

These increased incidences of low bus speeds have the effect of making bus use less attractive as a mode; as a consequence flows are forecast to reduce. The change in public transport flows across the mainland TfSH area between 2010-26 in the AM peak are shown in figure 20. The width of the band denotes the extent of the change on flow, with increased flows shown by reds and reductions shown by blues. The largest increases in public transport flows are expected on rail, whilst flows on the radial bus routes into our cities and towns are forecast to reduce. It can also be seen that the segregated bus way (Bus Rapid Transit Phase 1) in Gosport is responsible for a significant growth in bus demand on the Gosport peninsular, although this, in part, is off-set by abstraction from other services.



4.3.3 ACTIVE MODES

The total number of trips to/ from or within the TfSH area undertaken by active modes is forecast to increase by 5% between 2010-26.

4.3.4 CARBON

Figure 21 shows the expected trends in emissions from transport between 2010 and 2036. Despite the forecast increases in vehicular km travelled (blue line) and vehicular time spent travelling (red line), the trajectory for all emissions is initially downwards as vehicle technology is forecast to improve and reduce emission per vehicle km. However, the technological impact is only apparent until the early to mid-2020s, after which the increase in traffic volumes continues unmitigated and emissions begin to rise again (as a consequence of increased vehicular usage and delays). In particular, carbon and carbon monoxide levels have returned to around 2010 levels by 2026. In terms of local pollutants, Nitrous Oxide (NOx) levels are cut substantially, but particulate (PM10) and hydrocarbons (HC) are less effectively mitigated.

Figure 21: Forecast Emissions Trends in TfSH Area 2010-2036

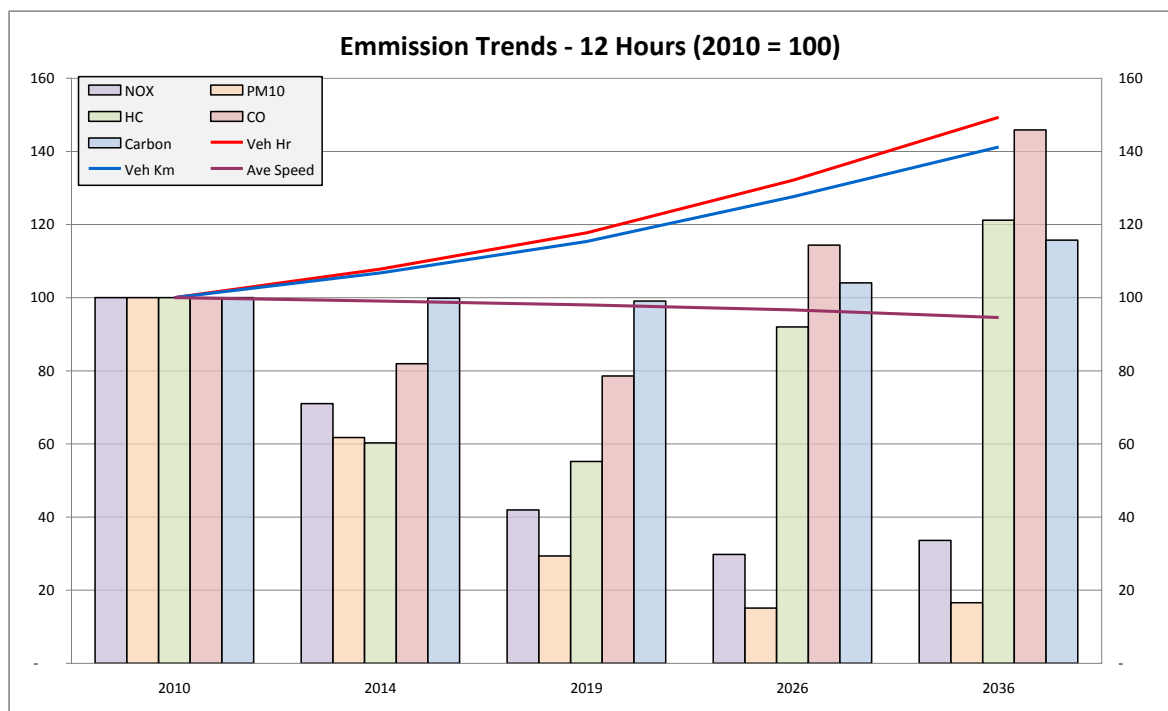


Figure 22: Forecast Carbon Output (kg per annum) from Transport Sources (AM Peak, 2010-36)

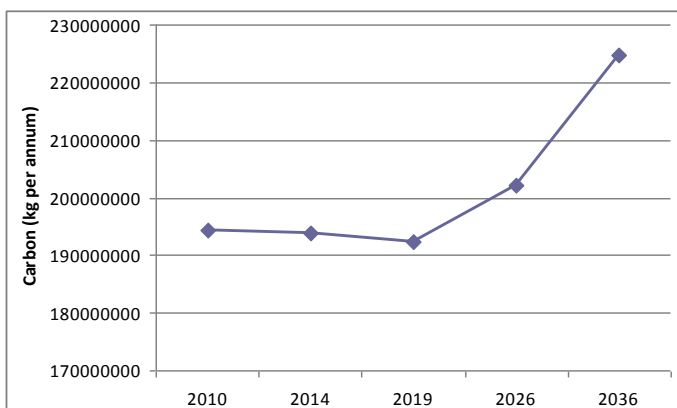


Figure 22 shows that carbon output, whilst initially falling from a 2010 base of 194m kg per annum, rises from 2019, rapidly surpassing 2010 levels. By 2026 carbon output from transport would be 16% greater than 2010 levels as advances in technology fail to keep pace with usage.

4.4 SUMMARY OF CURRENT AND FUTURE TRANSPORT PROBLEMS

The majority of all trips in the mainland TfSH area are currently made by car. Within the peaks, in particular, the daily commute is dominated by car trips. Around 10% of peak period travel time today is spent in queues caused by demand in excess of capacities. With total car trips within the area set to grow by around 13% by 2026, the total time lost in such delays will increase by more than 50% compared to levels today.

Most delay currently occurs in the urban areas on radial routes into the city centres, as well as in the city centres themselves. The largest hotspots in terms of total delay are the motorway junctions, which has implications for strategic movements, and impacts negatively on the economic competitiveness of our international gateways and our economic centres. These problems are forecast to be exacerbated in the future.

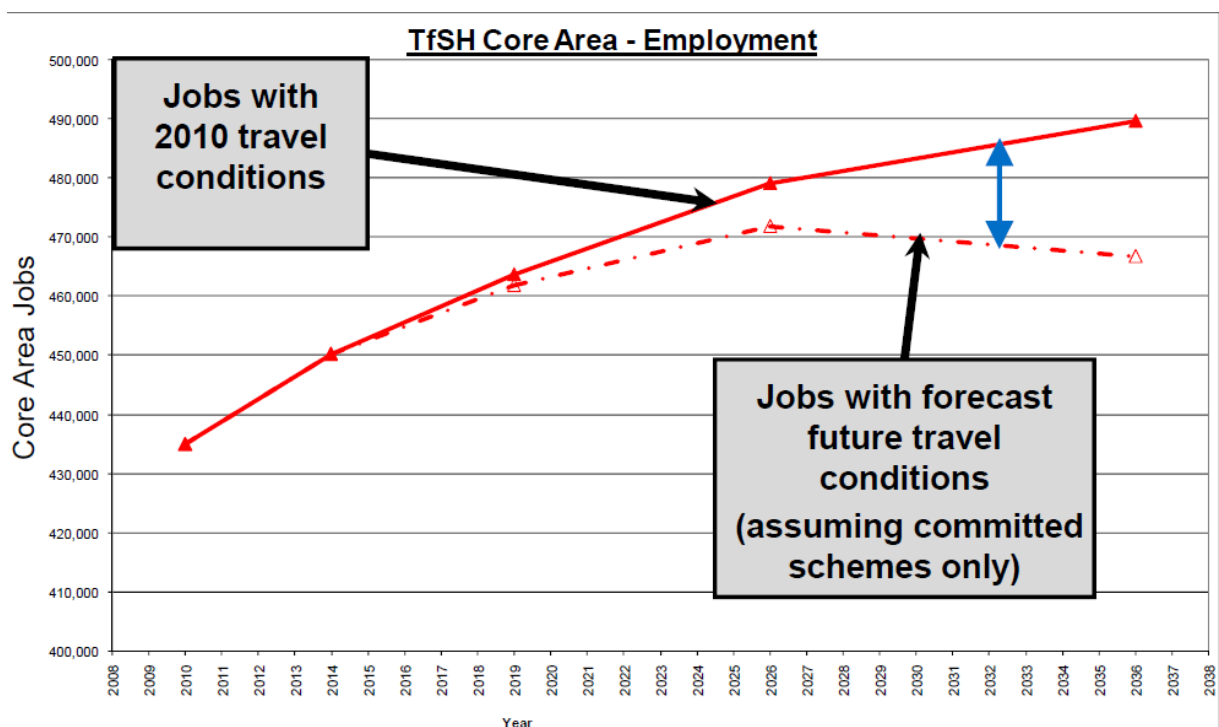
Many of the vehicles contributing to delays are making relatively short trips. Indeed, in the most densely populated areas 56% of trips are less than 5km in length. The motorway network, too, is supporting a substantial proportion of short trips, with around 28% of trips on the M27 involving 'hops' of one or two junctions, emphasising the role of this route as a local distributor road.

The increased demand for highway capacity is forecast to have a significant negative impact on bus patronage growth. Increases in incidence of delays to buses are forecast, which will act to reduce the attractiveness of the mode.

4.4.1 IMPACT OF TRANSPORT CONSTRAINTS ON ECONOMIC GROWTH

The impact of the transport constraints identified in this section on employment growth in South Hampshire has been modelled and is shown in figure 23. The employment gap between the red lines show the likely suppression of the expected employment growth trajectory if transport issues are not addressed. In other words, Economic Growth will be constrained. This will impact on the contribution that South Hampshire can make to the UK economy and have implications for the competitiveness of our businesses and the quality of life of our residents.

Figure 23: Impact of Transport Constraints on Employment Growth



The evidence shows that there is a need for transport intervention to support sustainable economic growth. In the absence of transport intervention, transport will act as a constraint on sustainable economic growth.



5. TRANSPORT BARRIERS

The previous section (4) provided a summary of the evidence of current and forecast future transport problems in a *Do Minimum* scenario, whilst section 2 provided a summary of the area characteristics. This review has provided the background to the key transport Barriers that exist within the area. By their nature, these Barriers are spatially specific and often quite detailed. The Barriers are presented in table 6 and, in accordance with webTAG advice, they emerge from:

- current transport-related problems
- future transport-related problems
- underlying causes.

Table 6: Transport Barriers in South Hampshire and Links to Outcomes

Barrier #	Barrier Description	Link to Outcomes
B1	Low containment in new developments outside existing urban areas, leading to longer and less sustainable commuting distances	O3; O5
B2	Limited employment opportunities in Gosport leading to out-commuting	O3
B3	High levels of car dependence for journeys outside of cities and Gosport	O3
B4	The two cities operating as two separate journey to work areas	O1; O2; O4; O5
B5	Areas of deprivation have poorer than average access to jobs by Public Transport	O4
B6	Out of town areas have more limited employment catchments and can be significantly less accessible by Public Transport	O4; O5
B7	Forecast growth at ports will increase pressure on transport network and may not be realised if capacity not available	O1; O3
B8	Mode shift projections for freight traffic may not be realised if insufficient incentive available to switch	O1; O3
B9	Absence of direct rail links to the airport from the east discourages use of Public Transport	O1; O2; O3
B10	Risk of flooding is a constraint on types of interventions that can be considered	O4
B11	M27 forecast to be operating above capacity, particularly in vicinity of the New Community North of Fareham	O1; O5
B12	Urban motorways form physical barriers to movement by active modes from a number of locations	O5
B13	Current and increasing levels of delay on M27 in vicinity of Southampton	O3; O5
B14	Delays along key corridors in Southampton may stifle growth of Economy	O1; O2
B15	Delays caused by congestion on M27 adversely affect east to west Movements	O2
B16	High out-commuting from Gosport contributes to significant delay along A32 and in Fareham	O2
B17	Congestion on links to Portsea Island and around Portsmouth city centre will potentially constrain access to the Portsmouth International Port and new developments	O2; O3; O4
B18	Increase delay at M3 junctions in Winchester area adversely affecting freight movements	O1; O2
B19	inefficient use of road network for trips that could be made by active modes or public transport	O1
B20	Capacity constraints on rail to London mean there is limited capacity for further growth	O1; O2; O3
B21	Number of rail infrastructure limitations currently prevent operation of rail services from Southampton Airport Parkway to the east TfSH area	O2
B22	Slow and infrequent train services between Portsmouth and Southampton	O1; O3

	contribute to the low levels of interaction	
B23	Optimal benefit from Bus Rapid Transit (BRT) investment will not be realised if it is not developed as part of a high quality, integrated transport offer	O2; O3
B24	Bus journey times are forecast to increase as a result of congestion	O2; O4
B25	Increasing transport costs caused by demand exceeding available capacity is forecast to limit uptake of permissible sites for development	O2; O3
B26	Forecast increases in traffic volumes will mean that carbon emissions from TfSH area increase in real terms	O2; O3; O4
B27	High levels of inactivity and obesity in some areas contribute to a poorer quality of life and have a detrimental effect on the local economy	O2; O5

As identified in section 3, Objectives and solutions flow from the identification of evidenced Barriers to achieving the Outcomes. The links between the Barriers and Objectives is shown in table 7. Only B10 “*Risk of flooding is a constraint on types of interventions that can be considered*” is not covered by the Objectives.

Table 7: Linking Objectives to Barriers

Objective	Barrier(s)
Enable higher levels of economic growth by improving local employment opportunities, deepening the labour market and therefore increasing productivity	B4, B6, B13, B14, B15, B20, B21, B22, B26
Enhance business performance particularly at the international gateways, by increasing the efficiency of the transport network and managing congestion	B7, B9, B13, B17, B18
Improve sustainable access linking people to jobs and key facilities in our cities and towns	B1, B2, B11, B12, B16, B19, B23, B24, B25
Reduce emissions (particularly carbon) from the transport sector by reducing highway vehicle kilometres	B3, B8, B27
Reduce unemployment in areas of high deprivation through improved sustainable access to employment centres	B5

6. APPROACH TO DELIVERY

6.1 APPROACH TO DELIVERY

It is important that delivery is framed by an underpinning and guiding approach to ensure that schemes do not counteract one another and that all play a part in achieving the Outcomes. The approach to support the achievement of the Outcomes that underpins this plan is focused around four mutually-supporting delivery strands:

1 Strengthening existing urban areas, supporting the ‘Cities First’ approach by encouraging sustainable patterns of living and working within existing urban areas. This supports all objectives; specifically economic growth and reducing greenhouse gas emissions as well as supporting regeneration. This strand has an emphasis on international gateways by promoting uninhibited port access and public transport access to Southampton Airport. In addition this strand seeks to build on established urban centres by both expanding access options and their environment through:

- Improved Transport Choices;
- Urban Realm improvements; and
- Reducing congestion.

2 Raising the quality of public transport and other alternatives to car. The first strand helps facilitate the success of this strand by ensuring development-related demand can be readily served by public transport. As well as supporting economic growth and greenhouse gas objectives this will assist in providing sustainable access to employment and key facilities, specifically from areas of deprivation and so deepening the labour pool available to local employers through:

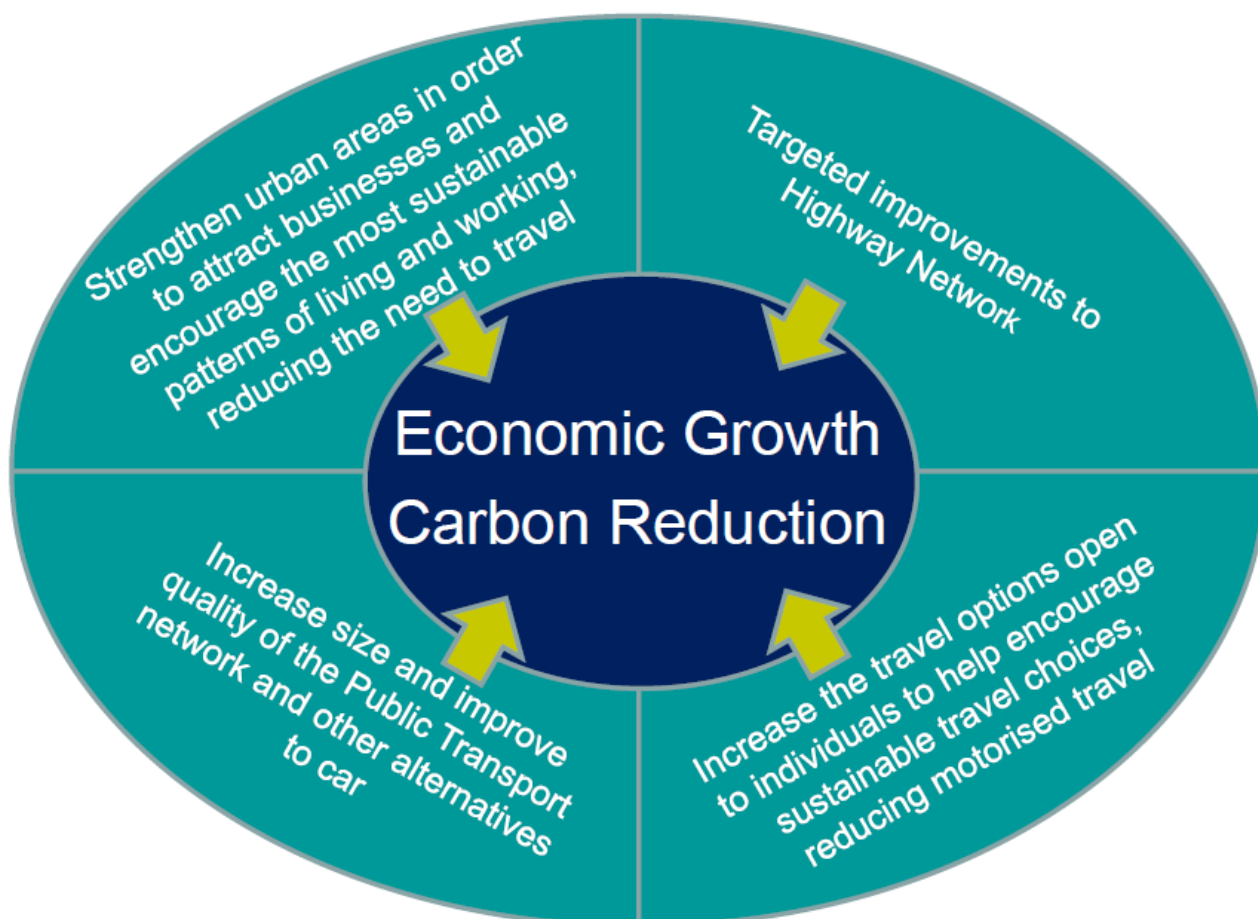
- Improved access from the urban hinterland; and
- Enhanced east-west access to jobs across the area.

3 Increased promotion of travel options, to make sure maximum use is made of public transport and active modes. This strand supports the first two strands and the Objectives supported by them, by encouraging individuals to adopt sustainable travel and behaviour patterns, where practical.

4 Targeted improvements to the highway network where these can bring the biggest economic gains. These are important to accommodate the implementation of development sites to support housing and employment growth, strengthening the performance of the international gateways, and improve access to the cities.

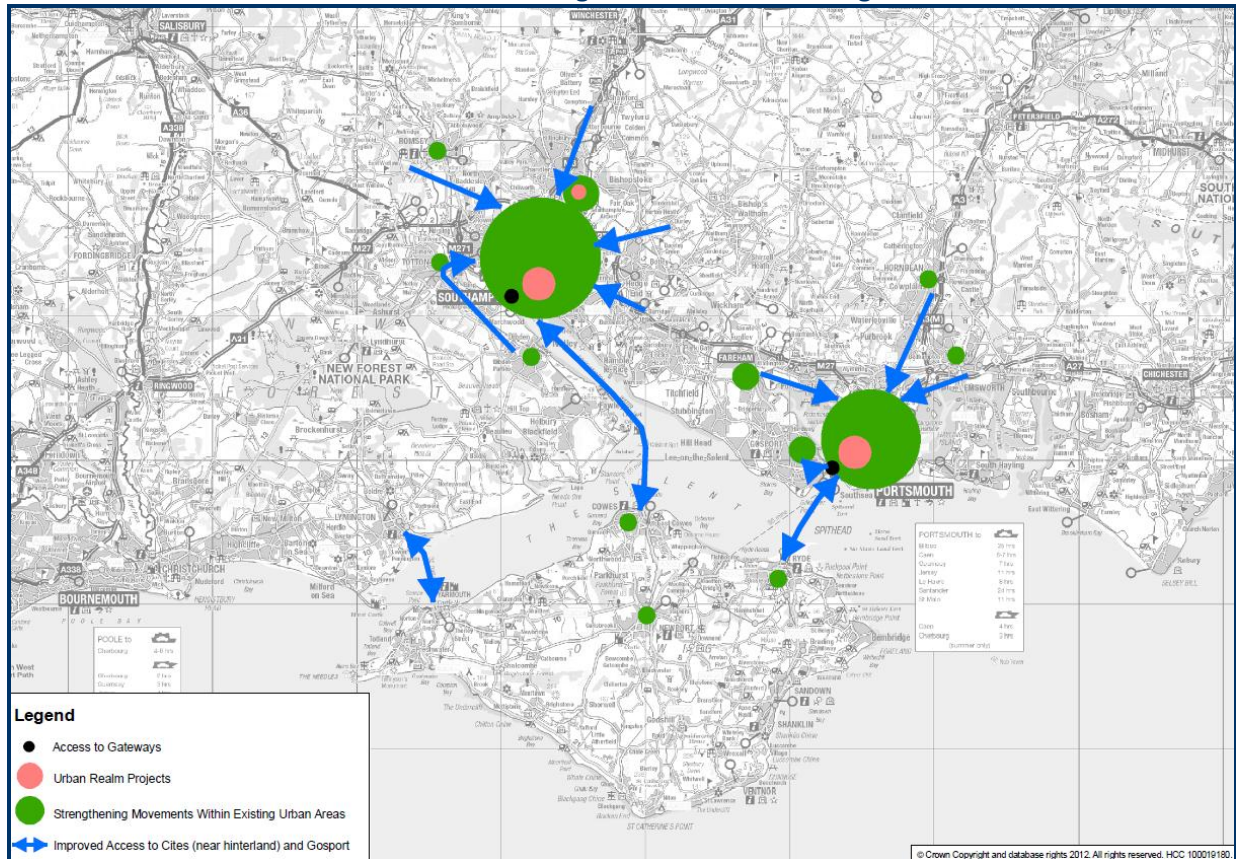
This approach is represented, graphically, in figure 24, below:

Figure 24: How the Mutually-Supporting Delivery Strands Target Economic Growth and Carbon Reduction

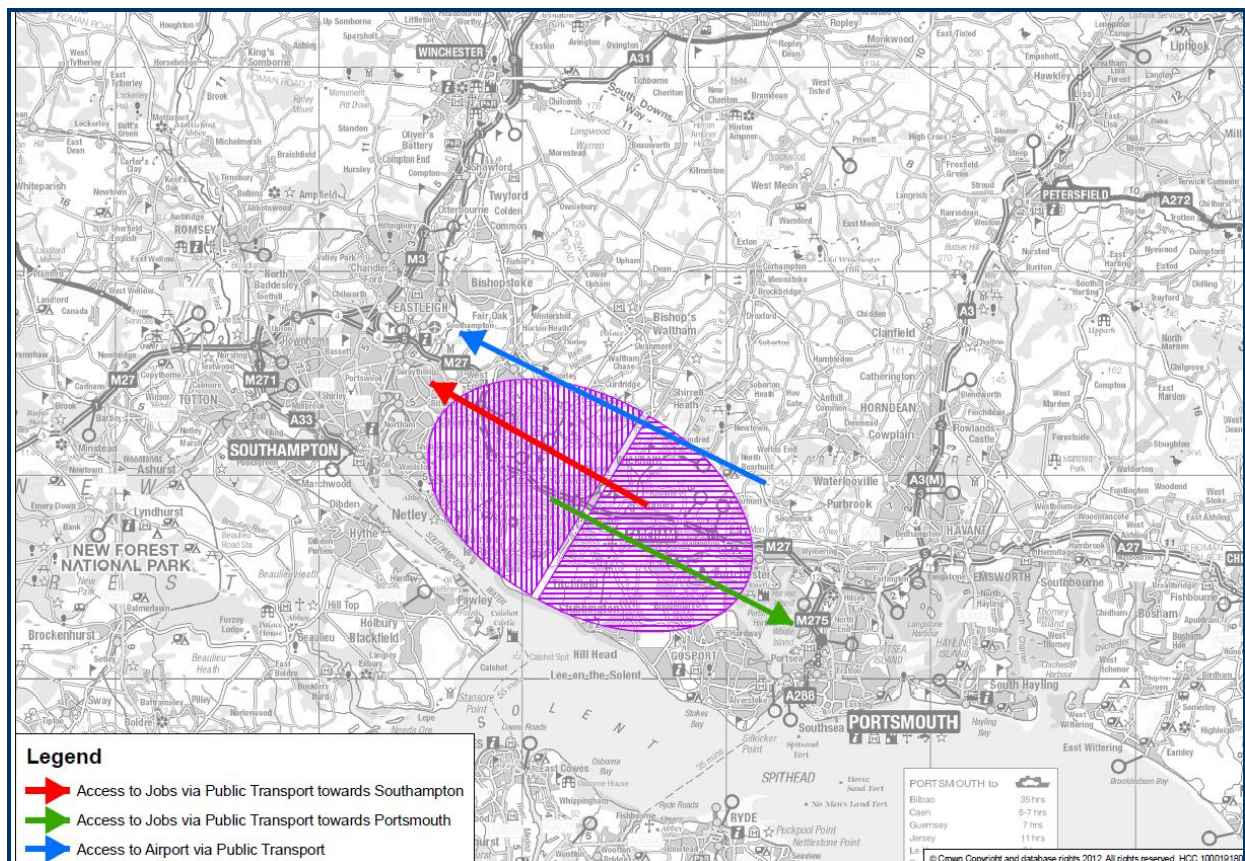


Maps 2 and 3 show how the four delivery strands are already shaping transport investment and will guide delivery across the area. Map 2 shows a focus on strengthening the existing urban areas and improving access to/ from the cities. Regeneration of city and town centres plays an important role here encouraging movement by public transport and active modes and by encouraging a concentration of movements in city / town centres. Map 3 looks to the longer term and identifies an approach that seeks to encourage public transport use for longer distance east-west sub-regional movements.

Map 2: Primary Delivery Focus (short and medium term) – Strengthening Movements within and to Existing Urban Areas Focussing on Short-Distance Movement



Map 3: Secondary Delivery Focus (longer term) – Longer Distance Movements and Closer Interaction of the Two Cities



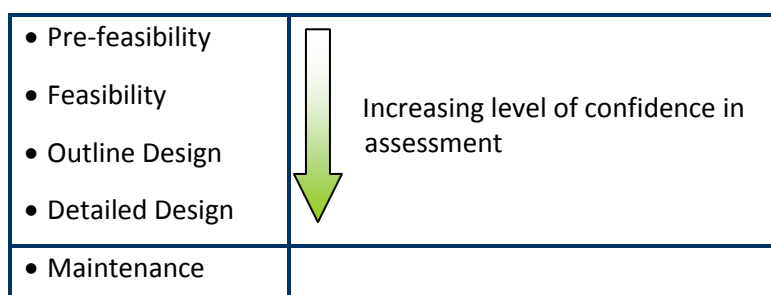
7. SCHEMES SUMMARY

The next two sections (8 and 9) provide details of the schemes that form this delivery plan. As noted earlier, this plan will be reviewed on a six-monthly basis with the scheme list updated, scheme refinements made and new schemes added, where new evidence exists and opportunities are identified.

Section 8 sets out those schemes that have been delivered, are being delivered or are committed for delivery. These represent early deliverables that contribute to the Outcomes and which support future schemes.

Section 9 presents those schemes that have been identified as most likely to be effective in supporting the achievement of the Outcomes and provide value for money for the period to 2026. This has been informed through a mix of assessment using the SRTM and other assessment tools (as explained in section 3) and experience of the delivery of similar schemes elsewhere (either in the area or outside). When identifying the proposed measures to take forward it is imperative that they accord with the approach to delivery as outlined in section 6 and whilst some schemes have the potential to perform well in their own right, they may have unintended consequences that detract from the desired Outcomes.

Each scheme in section 9 is assigned a status, as presented below, which identifies how far each scheme is progressed in its development. The greater the level of work that has been undertaken the more confident we can be of the benefits and value for money that schemes will realise. There is an inherent danger in reporting benefits and costs at an early stage as these can vary considerably as more detailed work is undertaken. Furthermore as schemes are at different stages of their development we would not be comparing like with like (in terms of level of confidence) and could therefore misinform decision-making.



‘Maintenance’ relates to those measures that have already been delivered but may require a level of maintenance funding to make best use of that investment and to ensure that associated benefits continue to be realised in the future – this is particularly the case with regard to travel choice interventions.

It is important to note that the options tested are indeed options, and variations on proposals will exist. The TDP identifies the schemes for which there is evidence that they can solve current or forecast transport problems and provide value form money. Each scheme will need to be considered in greater detail before funding can be secured, as would be the case through the development of a Transport Business Case. The schemes in this section should provide the focus for transport funding to 2026. However, at the same time TfSH will continue to plan for beyond this period and identify schemes that may have potential in the longer term, for example, Botley Bypass and Gosport Western Access.

It is also important to note that, with regard to a number of strategic sites, work is being progressed by development promoters and Local Planning Authorities (in combination with the relevant Highway Authority) to identify transport options.

Section 10 provides a summary of the key strategic developments that are being delivered or are planned to be delivered for which transport intervention will be required. The transport interventions to support

these developments are being identified – in the main – by the relevant Local Planning Authorities and/ or developers. The transport interventions related to development are expected to be funded at least in part by developer contributions or through funding that would be paid back by the development at a future date.

Section 11 summarises the schemes presented in section 9 in table format, and links the TDP schemes back to the Outcomes that they seek to achieve.

8. COMMITTED SCHEMES

Recent years have been extremely successful for TfSH and its individual Local Transport Authorities, with considerable funding secured for scheme delivery, as demonstrated in table 8. As well as sizeable funding from central government, these projects include local contributions from both the public and private sectors.

Table 8: Recent Funding Secured for Transport Delivery in the TfSH Area

Bidding Body	Project	Total Cost	Funding Award	Delivery By	Delivery
TfSH	CIF – Bus Rapid Transit (Phase 1)	£ 25.00m	£20.00m	April 2012	Delivered
	BBAF – <i>Your Journey: Making Travel Time Your Time</i>	£ 7.37m	£ 4.48m	End March 2014	
	LSTF – <i>A Better Connected South Hampshire</i>	£ 31.16m	£17.84m	End March 2015	
Hampshire County Council	GPF - Newgate Lane	£ 8.5m	£ 3.6m	April 2012	
Isle of Wight Council	LSTF - <i>Sustainable transport access to tourism</i>	£ 5.2m	£ 3.95m	End March 2015	
Portsmouth City Council	LSTF – <i>A Sustainable and Connected Centre – Supporting Portsmouth's Retail, Tourism and Wider Economy</i>	£ 7.15m	£ 5.0m	By End March 2015	
	Northern Road Bridge	£ 13.00m	£11.00m	End Dec 2013	
	Tipner Interchange and Park & Ride*	£ 28.00m	£19.50m	End March 2014	
Southampton City Council	LSTF – <i>Southampton Sustainable Travel City</i>	£ 5.72m	£ 3.90m	End March 2015	
	RGF – <i>Platform for Prosperity</i>	£ 8.00m	£ 5.6m	End Dec 2014	
Total		£139.10m	£94.87m		

LSTF = Local Sustainable Transport Fund; BBAF = Better Bus Area Fund
 GPF = Growing Places Fund; RGF = Regional Growth Fund; CIF = Community Infrastructure Fund
 *Final decision expected in December 2012

Key:

	No risk to delivery on time
	Low risk of delivery not on time
	High Risk of delivery not on time

The following schemes (listed in table 9) have been delivered, or are committed for delivery, by external delivery bodies.

Table 9: Schemes Delivered or Committed for Delivery by External Delivery Bodies

Delivery Body	Project	Cost	Delivery Period
Highway Agency	M27 Junction 3	£ 2.00m	2015
	M27 Junction 5	£ 4.90m	2015
	M3 Junction 9 (Easton	£ 0.40m	2015

	Lane Signalisation)		
Network Rail	Southampton – Basingstoke Rail Freight Diversionary Route	£38.00m	2012
Southern Railway	Southampton-Brighton Panhandle Service (one-way loop via Southampton Airport Parkway)	N/A	Not yet confirmed

In addition to the above schemes, Portsmouth City Council has delivered a capacity improvement scheme on Eastern Road. This has been delivered at a cost of £470k. As a result of the scheme there has been a significant improvement in traffic flow.

Whilst these schemes are already either delivered, being delivered or are committed for delivery, it is important that they are included within this delivery plan as they represent early deliverables within the plan and form an important early phase of the approach to delivery, as set out in section 6. Future schemes will build on and multiply the impact of these early deliverables. Each of these schemes is summarised below.



TfSH LSTF Project - A Better Connected South Hampshire

This project aims to realise mode shift from the private car to public transport and active modes, targeting access to our urban centres. In so doing, access to the international gateways will be strengthened and highway capacity will be released.

The proposals are being applied across South Hampshire and can be categorised under three inter-locking themes:

- An interoperable smart ticket for bus and ferry travel
- Area-wide and corridor-specific *Travel Choice* interventions, aimed at encouraging uptake of public transport, walking and cycling
- Physical interventions along nine corridors and at interchanges (*including Real Time Passenger Information, bus priority, and provision for cycling and walking*).

These interventions will target nine corridors into Gosport, Portsmouth, and Southampton. The two cities are the economic centres for South Hampshire, yet access to both is congested – particularly in the peaks. As a peninsula, access to Gosport is constrained, and this needs to be relieved to help regenerate the area and support the Solent Enterprise Zone at Daedalus. Further details are available in the [Business Case](#).



TfSH BBAF Project – Your Journey: Making Travel Time Your Time

This project aims to raise the quality of bus travel, and through this, change perceptions of the bus, by addressing those features of bus travel that act as barriers to attracting new users and by providing facilities that will make bus travel a comparatively better option to the private car. The package of measures includes: Free on board internet on over 550 buses; Next Stop Audio-Visual Systems on 500 buses; LED Internal Lighting; Over 130 Bus Refurbishments; Apprenticeships; Improved Customer Services; Bus Priority Improvements on the A32 in Gosport (Brockhurst Roundabout and Crossways Junction); Marketing of the Bus; and Information provided through Near Field Communication. Further details are available in the [application](#), with project progress reported on the [TfSH website](#).



Hampshire County Council – Access to Solent Enterprise Zone

The scheme comprises on-line carriageway widening and a new segregated shared footway and cycleway on the rural section to the south of HMS Collingwood, together with improvements to the junctions with Rowner Road (at Peel Common), Speedfields Park, Longfield Avenue, Frankport Way and measures to assist pedestrians, cyclists and bus users. The cost of the scheme is £8.5m.

Newgate Lane links the Gosport peninsula to A27 in Fareham and to the wider strategic transport networks at Fareham Railway Station and M27, Junction 11. In particular Newgate Lane provides the most direct route to the Solent Enterprise Zone located at former HMS Daedalus. The objective of the scheme is to improve journey times, journey reliability and safety along the corridor for the benefit of drivers, cyclists and pedestrians whilst allowing safe access to and from the route for local residents and businesses. The scheme is intended to address existing levels of traffic congestion along the corridor that are prevalent during the morning and evening periods of peak travel and increasingly during the working day and Saturdays. The scheme, along with other measures including the extension of Bus Rapid Transit in Gosport aims to address the access requirements of the Gosport peninsula and the Solent Enterprise Zone during the period to 2026. Initial model outputs indicate that the scheme has the potential benefit of attracting trips that might otherwise use alternative and less appropriate routes on and off the peninsula.



Hampshire County Council – Phase 1a Bus Rapid Transit

This project has significantly improved the quality, perception and provision of public transport in the Gosport peninsula with a high specification dedicated busway, state of the art buses, information provision and enhanced bus stop infrastructure. Improved service frequency and journey time reliability are key to the success of this project. The latest figures identify a 16% increase in bus patronage on the services replaced by the Eclipse with a 6% general increase in bus patronage in the Gosport peninsula. There has been close working with First Hampshire and Dorset throughout the development and delivery of the scheme to ensure maintenance of the highest standards for the customer throughout. The scheme is the first phase in a much wider project aimed at stimulating a step change in the economic prospects for south Hampshire by facilitating development at strategic sites, providing access to key destinations with a viable alternative to the private car, removing the transport barriers to growth and reducing overall carbon emissions. Further information is available on the [Eclipse website](#).



Isle of Wight Council LSTF Project - Sustainable transport access to tourism

This project seeks to upgrade, improve and promote the sustainable transport network in order to grow the increasingly popular green tourism market and establish the Island as a leading green tourism destination. The bid comprises of 4 key components:

- Public transport – improving walking and cycling linkages from public transport hubs to key tourist locations including accommodation, attractions, the countryside and coast
- National Cycle Network – increasing access and improvements to the National Cycle Network (NCN)
- Rights of Way (RoW) Network – upgrading and promotion of the RoW network
- Signage, information and publicity – printed and ‘virtual’ material and campaigns to support the project.

Further details are available in the [application](#).



Portsmouth City Council LSTF Project – A Sustainable and Connected Centre – Supporting Portsmouth’s Retail, Tourism and Wider Economy

The project has been developed to:

- Improve connectivity between the City Centre, Portsmouth Harbour (Gunwharf Quays, The Hard Interchange, the Historic Dockyard), by sustainable transport modes
- Encourage mode shift from car for trips in Central Portsmouth (by residents, visitors, commuters, and businesses), and reduce congestion
- Make Portsmouth a more desirable place to live and work; and a more attractive location for shopping and leisure activities.

The package comprises Improving connectivity in central Portsmouth for walking, cycling and public transport; Influencing travel behaviour and through marketing, information and branding activities. Further details are available in the [application](#).



Portsmouth City Council – Northern Road Bridge Major Scheme Project

This maintenance scheme aims to maintain the existing road network and prevent a future major railway incident as a consequence of bridge failure. Northern Road Bridge carries the A397 over the main line railway at Cosham. The railway is the main route for trains between Portsmouth and Waterloo (via Basingstoke) and those along the southwest to Brighton. The A397 is one of the main arteries for traffic heading south into the city. The Bridge is a critical element of the A397, which is a priority route for emergency vehicles and is located just south of a major sub-regional hospital (Queen Alexandra), police station and fire station. It is on the main bus route to residential populations in the north of Portsmouth including Waterlooville, and is an integral part of the north/south public transport “Zip” corridor.



Portsmouth City Council – Tipner Interchange and Park & Ride Major Scheme Project

This scheme aims to unlock the development potential of the Tipner site in Portsmouth. The scheme will provide a new all movement motorway junction on M275, a new Park & Ride site accessed by the new motorway junction, and a new additional bus priority lane on the M275 heading south from the new interchange.

Regenerating the Tipner area will bring major benefits to Portsmouth, most notably, the clean-up of former industrial land; the creation of new open spaces, parks and waterside walks; and much needed homes and jobs.

The infrastructure development plan has identified the following infrastructure as necessary for the regeneration of Tipner:

- Motorway junction and bus lane to M275;
- Park and Ride;
- Highway improvements;
- Public transport links, including Bus Rapid Transport;
- Improved cycling and walking links.

To date initial approval has been received from DfT for funding for a new Motorway junction on the M275 and Park and Ride £29.5m (£10m PCC plus £19.5m DfT). Final approval expected December 2012.

See also the Tipner major development summary in section 10.



Portsmouth City Council – Eastern Lane Capacity Improvements Project

This scheme aims to reduce congestion through increased capacity on Eastern Road, which is the eastern of the three access roads onto Portsea Island. The scheme provides an additional south-bound lane between Hayling Avenue and Kirpal Road and signalisation of the junction with Milton Road.



Southampton City Council LSTF Project – Southampton Sustainable Travel City

The project aims to achieve a 12 percentage point's change in modal share away from the private car to other modes of transport; a real terms cut in emissions from transport (including freight) and facilitate the aspiration of the City including 30,000 new jobs in 2026.

Based on best practice from other similar programmes (Sustainable Demonstration Towns, Smarter Travel Sutton), the project is delivering a city-wide travel behaviour change programme. Its focus is on enabling and promoting greater uptake of the use of public transport, cycling and walking for all trip purposes through a variety of measures:

- A city wide marketing campaign and targeted marketing through the My Journey brand
- Focus on business, school, residential and destination travel planning
- Public transport planning, technology and eco-driving
- A comprehensive active travel programme
- Freight consolidation and freight optimisation

Taking into consideration the project aims and other relevant benefits (health, CO₂, noise and

the direct benefit of improved travel conditions) the estimated benefit of the programme is likely to deliver a BCR of at least 7:1.



Southampton City Council RGF Project – *Platform for Prosperity*

The ***Platform for Prosperity*** scheme will deliver a series of strategic access improvements to the Port of Southampton Eastern Docks in Platform Road. The current road layout is a one gyratory system around Queen's Park with access in and out of the Eastern Docks at Gate 4. Peak traffic demands, particularly on busy cruise days, cause significant levels of congestion. This will be exacerbated in the future, as the cruise business continues to grow.

The proposed scheme will remove the existing one way gyratory system around Queen's Park and replace this with a two-way dual carriageway along the south side of the park. New signalised junctions will provide access into the Port at Gate 4 and an exit point at Gate 5. Investment by ABP will provide a new link road within the Port to access Gate 5. The proposals will provide additional capacity both along Platform Road and for traffic movements entering and exiting the Port. The scheme is due to start construction in 2013 and will be completed in 2014.



Highways Agency – *M27 Junction 3 Pinch-Point Project*

This scheme aims to reduce congestion by widening the westbound exit slip road, providing four lanes on all four carriageway sections and installing traffic signals. The scheme supports the Adanac Park Development and improves access to Southampton Port.



Highways Agency – *M27 Junction 5 Pinch-Point Project*

A significant amount of work has already been undertaken on this scheme and 40% of the total funding has already been secured and spent on delivery of Phase 1 which has been completed with New Growth Point Funding. This scheme aims to build upon the first phase to further improve the flow of traffic through the junction, improve safety on slip roads, improve capacity and accessibility and will improve access to key sites and services for freight and employees. The junction forms a critical transport hub serving Southampton International Airport, Southampton Parkway Station as well as providing improved access to the Port of Southampton and Eastleigh town centre and helping to facilitate the development of the strategic employment site at Eastleigh Riverside. The scheme will provide signalisation dedicated slip roads and will widen approach roads.



Highways Agency – *M3 Junction 9 Pinch-Point Project*

This schemes aims to reduce congestion and improve safety by improving the signing, lane designations and through signalisation of the Easton Lane exit onto the M3 Junction 9 roundabout with the A34.



Network Rail – *Southampton to Basingstoke Alternative Rail Freight Route*

This project aims to provide an alternative route for rail freight out of Southampton docks to take larger freight containers. The works require 17 bridges to be knocked down and rebuilt the track to be altered at 11 locations and station canopies at Andover, Romsey and Whitchurch to be adjusted.



Southern Railway – *Southampton-Brighton Panhandle Services*

The provision of this enhanced service aims to Improve rail access to Southampton airport from the east. The existing Brighton to Southampton service will divert via Southampton Airport Parkway in that direction only. Passengers travelling from Southampton Airport Parkway to Brighton can travel via Southampton.

9. RESULTS OF ASSESSMENT AND SCHEME STATUS

As explained in section 3, the initial options generated have been sifted to identify the interventions most likely to be effective in supporting the achievement of the Outcomes and provide value for money. The resultant set of schemes has been appraised using the SRTM or other assessment tools, or has been informed from delivery of similar schemes elsewhere.

This section presents the results of this process, with schemes grouped into the following categories:

- Transport-led Urban Regeneration
- Walking & Cycling
- Reducing the Need to Travel
- Managing Freight
- Bus Priority, Bus Rapid Transit (BRT) and Enhanced Bus Services
- Rail
- Water
- Park & Ride
- Highway Schemes – Targeted Investment
- Highway Schemes – Development-Related

For each scheme the following information is provided:

#	Project Name	
	Scheme Description	<i>Summary of the scheme.</i>
	Assessment Comment	<i>Commentary on any noteworthy aspects of the assessment basis.</i>
	Strategic Case	<i>This provides headlines that would form the basis of a strategic case for investment, and SRTM assessment outputs (where available)</i>
	Scheme Status	<i>Assessment of scheme status as either: Pre-feasibility, Feasibility; Outline Design; Detailed Design; or Maintenance</i>

The above format includes high level summary information on the Strategic case (which along with the Economic case provides the main 'cases' within the DfT Transport Business Case format. As noted above there is an inherent danger in reporting headline information on early Benefit Cost Ratio's (BCRs) and costs (Financial case) at this early stage, and as such, these are more appropriately reported through more detailed work. Furthermore, as schemes are at different stages of their development we would not be comparing like with like (in terms of level of confidence) and could therefore misinform decision-making. The other two cases (Commercial case: which considers the procurement strategy and financial implications; and Management case: – which considers project planning, governance structure, risk management, communications and stakeholder management, benefits realisation and assurance) are not appropriate at this level, but would need to be developed through a full funding bid.

The key below identifies the role of operators and non-LTA network providers in the delivery of schemes:

Key:

	Commercially Operated
	Funded by Non-LTA Network Delivery Body

It is expected that, for each project, a mix of funding sources is likely to be pooled to realise delivery.

9.1 TRANSPORT-LED URBAN REGENERATION

By improving the quality of our urban areas, and in particular, our city and town centres it is hoped that people and business will be attracted back to our core urban areas. City and town centres have unique characteristics, which make them the most sustainable location to deliver economic growth, whilst minimising the consequential transport impact. They are accessible to a wide catchment area by a choice of transport modes, reducing car dependency. More importantly, the focus of economic activity within a small and concentrated geographical area significantly reduces the need to travel. People can access facilities with a short walk, instead of having to drive longer distances.

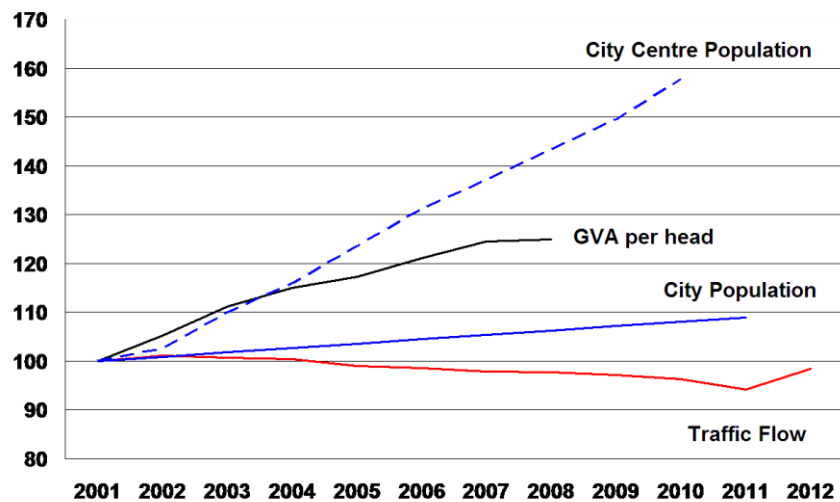
The spatial redistribution of people and business encouraged by urban regeneration will help to counteract the flight to the motorway business parks and housing estates of the past thirty years, which have bought with it increasing use of the car and increased congestion. City and town centres provide the most sustainable locations by encouraging a reduction in the need for travel and maximising opportunities for active modes and commercial public transport use. By encouraging people and business to locate in urban areas and with the concentration of movements that this would facilitate, we are better able to meet their transport requirements at lower cost. It is also the most affordable way to break the link between development and traffic growth.

1	Project Name	Southampton City Streets
	Scheme Description	This scheme comprises of a package of transport improvements designed to unlock development sites. It includes schemes designed to encourage urban intensification and mixed use development. Schemes are tailored to local problems and are therefore a mix of solutions. Ultimately the package will create employment opportunities by covering infrastructure costs that would otherwise be incurred by developers and critically, uplifting the quality of the urban offer. This will reduce the costs of implementing development and also increase the value of the land at a time when the market requires stimulation. There are six proposed urban realm schemes in Southampton (Map 4, below): Phase 1 • Southampton Station - North and South (Site 1) • Civic Centre Place (Site 2) Phase 2 • Charlotte Place Roundabout (Site 3) • Six Dials, Kingsway / Green Mile and Threefield Lane (Site 4) • Town Quay / Western Esplanade (Site 5), and • Bargate (Site 6)
	Assessment Comment	Traditionally, the value of urban regeneration schemes has not been easy to capture or model. In summary, the approach here has taken the results of market research to understand the willingness of residents to pay for urban realm improvements and this willingness to pay was translated into generalised cost reductions that have been incorporated into the SRTM. For modelling purposes it has been assumed that all of the urban realm schemes will be delivered in 2019. In reality it is anticipated that the schemes will be implemented over a ten year period from 2015
	Strategic Case	Southampton City Centre is already an important focus for employment, retail and leisure activity within South Hampshire. Like many other cities in the UK, it is increasingly becoming a place to live. The recently published City Centre Master Plan and Action Plan will outline ambitious proposals for further growth, which will significantly increase the number of people living, working and visiting the city

centre.

Despite a population increase across the city of nearly 9% over the last ten years, traffic flows have remained fairly static over the same period, reinforcing how Southampton and its city centre can provide a sustainable location to accommodate growth. This is shown in the graph below.

Figure 25: Comparison of changes in population, GVA, and traffic flows, Southampton 2001-2012



Source: Southampton City Council

Southampton's prime office rents are currently £18 per sq ft. This is down from £19 per sq ft (2009/10) and is partially due to sluggish demand over the last 12 months. Incentives on Grade A space are stabilising at 18-24 months on a 10 year term. It has been assessed that for office development to be viable rents need to rise to close to £23.50 per sq ft. Urban regeneration can play an important role in achieving this "tipping point".

The City Streets schemes aim to meet the following objectives:

- Developing a modern access infrastructure with capacity to support anticipated growth
- Providing necessary modal shift to deliver growth
- Significantly improving and extending the quality of the pedestrian environment
- Improving bus facilities and services to service an extended city centre
- Making access to and within the city centre cycle-friendly
- Managing parking in scale and use to ensure efficient provision
- Improving the transport interchange and arrival experience at and around Centre Station – as benefitting a principal city region.

The programme of investment will work in tandem with the Local Sustainable Transport Fund project and accords with PUSH Spatial Strategy Policies 1 (Overall Development Strategy) and 2 (Urban Regeneration).

Model outputs show that these urban realm improvements would have a positive impact in terms of encouraging investment in the city centre and creating new jobs. Between modes, as perhaps may be expected, there is a slight reduction in the overall number of highway trips, with the majority of these trips shifting to active modes.

Overall these Interventions perform very well against economic growth as it

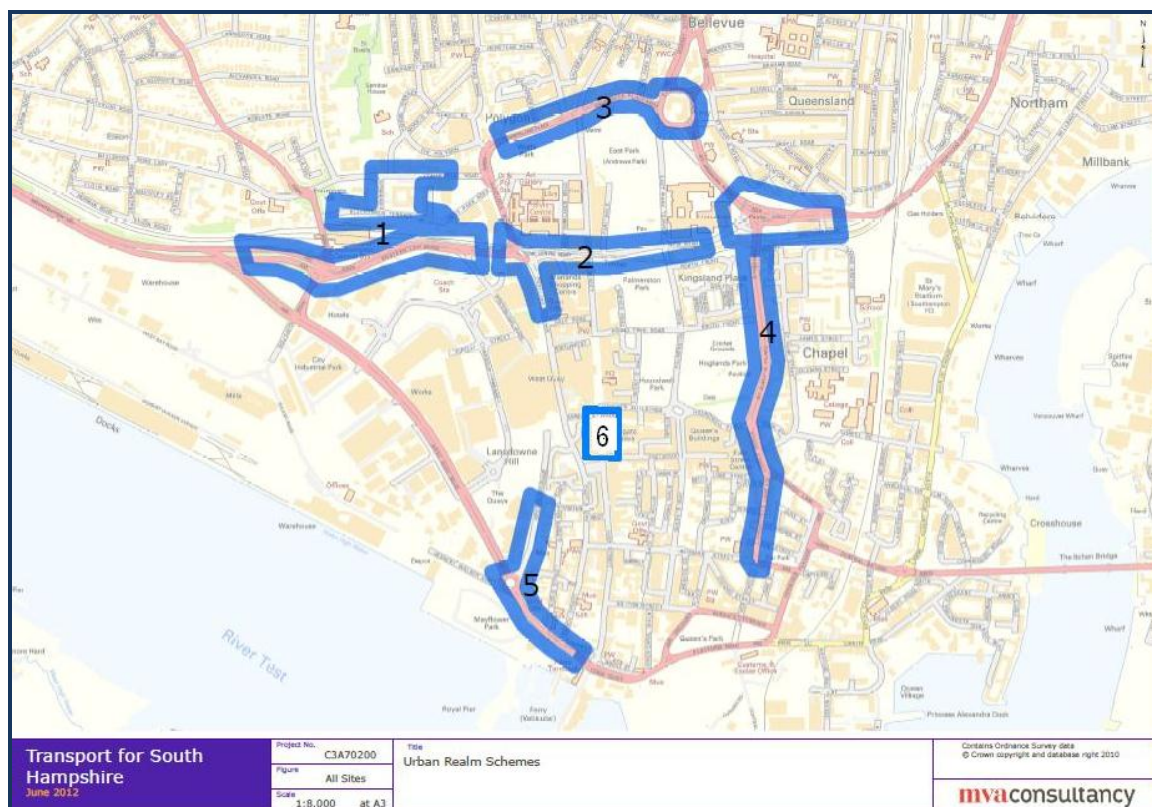
encourages inward investment in the city by providing an attractive place to live and work. It is projected to lead to a net creation of over 2,000 direct jobs related to Phase 1 and facilitating the remainder of the employment growth identified in the adopted [Local Plan](#). It also performs relatively well in the economic assessment, suggesting that the investment in the Intervention will be outweighed by the benefits it will bring in terms of job creation and housing growth. It is also likely to have additional benefits in terms of improving accessibility and also encouraging walking, thereby reducing emissions.

See also, the “Southampton City Centre” summary in section 10,

Scheme Status

Phase 1: Detailed Design
Phase 2: Detailed Design

Map 4: Southampton City Streets – Project Locations



2

Project Name

Portsmouth City Centre: Commercial Road Shopping Area, North of Market Way, Station Square and Station Street and the Guildhall Area

Scheme Description

This scheme is comprised of a package of transport measures to improve connectivity for all road users into Portsmouth City Centre and to enable development along the western corridor. It includes the reconfiguration of the highway network in the north of the city centre, providing easier access which unlocks a number of sites for development.

The new shopping streets will provide an effective retail circuit and enhanced pedestrian connectivity. The blocks / buildings will provide a consistent identity and character to the area but allow for architectural variation and distinctiveness.

The specific transport components of the scheme include:

- City centre road scheme;
- Pedestrianisation of Commercial Road south / Edinburgh Road and delivery of new

	bus interchange on Station Street; • Junction works at St Michael's Road / Winston Churchill Avenue; • Pedestrianisation of northern part of Guildhall Walk.
Assessment Comment	No assessment has taken place for this scheme.
Strategic Case	The adopted Portsmouth Plan identifies that the Commercial Road / Northern Quarter areas will deliver the majority of the 50,000m² of retail development needed in the city centre to increase its attractiveness as a retail destination. Station Square is expected to accommodate 10,500m² of new office floorspace while a mix of other uses including an additional 5000m² of food and drink development, new hotels and some 1,600 new homes will be accommodated throughout the city centre. These proposals are set out in the adopted Portsmouth Plan that sets out various policies in relation to the development of the city centre. Planning permission has been granted on some sites, others are in pre-application discussion, with others having no progress. A planning application for the Northern Quarter scheme is expected in 2013.  Delivery Timescales • Commencement of the Northern Quarter scheme (2015) is dependent on commencement of City centre road. The scheme is expected to open in 2018. • Works around St Michael's gyratory are also a priority. These works are key to maintaining good traffic flows on the city road network. • The Northern Quarter is dependent on the relocation of market traders from Commercial Road involving the pedestrianisation of Commercial Road / Edinburgh Road. This in turn is dependent on relocation of bus stops from this area to a new bus interchange on Station Street. In line with the Southampton City Streets scheme, this project will create an area that positively contributes to the city, making it an attractive and vibrant place in which people feel safe and secure both day and night. Accords with PUSH Spatial Strategy Policies 1 (Overall Development Strategy) and 2 (Urban Regeneration).
Scheme Status	Feasibility

Urban realm improvements, deriving similar benefits, although reduced in scale, are proposed for urban areas throughout the area, in particular, Eastleigh and Newport Town Centres. Recent improvements have already taken place at the following locations during the past 5 years:

- Waterlooville (led by Havant Borough Council)
- Leigh Park Centre (joint Hampshire County Council / Havant Borough Council project)
- Totton (Water Lane scheme)
- Fareham (West Street - joint scheme with Fareham Borough Council)
- Hamble (The Square - joint scheme with Eastleigh Borough Council)

Furthermore, over the past 5-10 years, urban realm improvements have taken place at:

- Romsey (The Hundred / Latimer Street)
- Hythe (Promenade)
- Totton (Rumbridge Street)
- Factory Road, Eastleigh.
- Leigh Road (outside The Point), Eastleigh.

3	Project Name	South Hampshire Primary Local Centres
	Scheme Description	Urban realm projects being developed currently include: • Lee-on-the-Solent • Leigh Park Centre (Dunsbury Way) • West Street (west end), Fareham • Park Road South, Havant • Bishops Waltham - St. George's Square • Totton - World Stores Roundabout • Romsey - Market Square • Eastleigh Railway Station • Forton Road, Gosport
	Assessment Comment	No assessment has taken place for these schemes.
	Strategic Case	In line with the Southampton City Streets scheme, this range of projects will create areas that regenerate town centres, reduce trip length by encourage the retention of local trade, encouraging access by active modes, and reduce car trips. This accords with PUSH Spatial Strategy Policies 1 (Overall Development Strategy) and 2 (Urban Regeneration).
	Scheme Status	Pre-Feasibility

9.2 WALKING & CYCLING

This section reports on the potential to continue to invest in walking and cycling schemes post-LSTF and the creation of strategic cycles links connecting settlements.

4	Project Name	Wider Roll-Out of LSTF Walking & Cycling Investment Programme
	Scheme Description	This Intervention will maintain and expand the package of measures as the LSTF funded Intervention, described in the LSTF Business Case . Interventions include improvements such as new crossings for pedestrians and cyclists, resurfacing of routes and provision of cycle lanes and cycle priority schemes in an effort to provide a more seamless pedestrian and cycling network. The infrastructure improvements are supported by a legible cities programme, based on the model for legible London, where clear on-street mapping is provided at transport hubs with identifiable landmarks and realistic walking times to help pedestrians and cyclists navigate.
	Assessment Comment	Further modelling tests have been undertaken to assess the impact of continued investment in improvements to the cycling and pedestrian network in South Hampshire. It has been assumed that future schemes and investment would be of a similar scale to those provided through the LSTF package (and estimated in the LSTF Business Case) and therefore similar benefits are anticipated.
	Strategic Case	By improving provision for walking and cycling the large volume of short trips (below 5km) that take place each day in the area have an improved likelihood of migrating to active modes from the private car. This frees up highway capacity, improving the performance of the highway network, improving productivity and the attractiveness of the area to live and do business. Carbon emissions will also reduce.
	Scheme Status	Pre-Feasibility

5	Project Name	Strategic Cycle Links
	Scheme Description	This proposes key strategic cycle route corridors for future delivery, including: • Southampton City to Chandler's Ford (Hutt Hill) • Botley - Hedge End - Eastleigh parallel to railway line • A27 corridor cycle route - Fareham to Southampton • Portsdown Hill - Fareham - Portsmouth - Southampton • Portsmouth Eastern Active Travel Corridor
	Assessment Comment	No assessment has taken place.
	Strategic Case	Alongside the delivery of the LSTF package of measures and other associated local pedestrian and cycle improvements, there are also a number of strategic cycle routes identified across the TfSH sub-region that would respond to evidenced constraints. The delivery of such routes is likely to generate benefits in terms of promoting sustainable travel between communities to access key employment areas, education and other local facilities and services and also promote active lifestyles and recreational benefits. The sub-region already has a excellent track record in delivering targeted, higher value strategic cycle route corridor improvements, working in partnership with neighbouring authorities and key partners such as the cycling charity Sustrans. This includes the extension to the National Cycle Network (NCN) Route 2 cycle route,

which now connects Southampton with Netley & Hamble as well as the extension of the NCN Route 23 through Winchester City.

By improving provision for walking and cycling the large volume of short trips (below 5km) that take place each day in the area have an improved likelihood of migrating to active modes from the private car. This frees up highway capacity, improving the performance of the highway network, improving productivity and the attractiveness of the area to live and do business. Carbon emissions will also reduce.

Scheme Status	Pre-Feasibility
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9.3 REDUCING THE NEED TO TRAVEL

This section reports on the potential of continued investment in reducing the need to travel post-LSTF through maintenance and expansion of Travel Choice and Technology and Home-working programmes.

6	Project Name	Maintenance of LSTF Travel Choice Components
	Scheme Description	This Intervention refers to the continued investment in this programme beyond LSTF funding, based on a cost of around £1.5m per year. These interventions aim to raise awareness and promote alternatives to car-based travel.
	Assessment Comment	The incremental impact of continuing to maintain LSTF travel choice elements beyond 2015.
	Strategic Case	Research into Smarter Travel (See Appendix 8 of the Southampton City Council LTP3 Appendices) has highlighted the need for continued investment in order to reinforce behaviour change and to ensure maximum impact as population changes and new infrastructure is built. It is anticipated that maintaining investment in Travel Choices will result in a similar scale of impact and associated benefits to that forecast within the LSTF Business Case. This is based on evidence that points to the value of supporting new infrastructure investment with these types of interventions as well as the need to reinforce positive behaviour amongst existing residents. Continued investment in Travel Choices also has the ability to impact on new groups of people that may be receptive to changing their travel behaviour, for example people who have recently moved to the area or local residents on the cusp of life-changing events such as a new job or new schools for their children.
	Scheme Status	Detailed Design

7	Project Name	Technology & Home-working
	Scheme Description	Over and above the LSTF Travel Choices package of measures, we have considered the role that technology and more flexible working practices can play in reducing the need to travel. This intervention is aimed at achieving this by encouraging employers to adopt flexible working hours and allowing more people to work from home when appropriate. This needs to be supported by the technology to work securely at home, particularly reliable high-speed broadband, and greater flexibility through the provision of 24 hour access to facilities and the promotion of home deliveries.
	Assessment Comment	The impact of these interventions has been modelled as a modest reduction in trip rates, as follows: • Move 2% of home-based commute trips to office-based activity to inter peak within the core; • Remove 2% of home-based commute trips to office-based activity from network within the core; and • Remove 2% of home-based other trips within the core.

Strategic Case	Interventions to improve technology and the opportunities for home-working perform well in assessment. They are relatively low cost to implement but have the potential to provide significant benefits in reducing travel, particularly by car. This in turn reduces congestion and carbon emissions. Results from Environmental Assessment Tool assessment indicate that this Intervention would result in a reduction of nearly 10,000kg of carbon per 12hr period compared to the do-minimum scenario. Facilitating home-working and improving supporting technologies is forecast to make a significant contribution to reducing unemployment and is predicted to lead to the creation of 214 jobs by 2026 because it allows people to access jobs without the need to travel and provides greater flexibility to those people with other commitments such as childcare.
Scheme Status	Pre-feasibility

9.4 MANAGING FREIGHT

The scheme presented here is for a Freight Consolidation Centre on the outskirts of Portsmouth, based on the Freight Consolidation Centre being delivered with funding from LSTF in Southampton. The scheme has not been assessed using the SRTM, but it is reasonable to assume that a similar level of benefits as those forecast in for the Southampton scheme could be realised for a scheme serving Portsmouth City Centre.

The current [TfSH Freight strategy](#) will be updated in 2013, as TfSH works with the freight industry to develop a new freight strategy with associated deliverables. The deliverables that emerge will feature in an update to this delivery plan and may include:

- The conversion of the rail line between Southampton and Basingstoke to 25kV AC overhead supply to create an electrification spine from the Port of Southampton to the Midlands;
- Improving utilisation of rail freight capacity;
- Lorry park close to Southampton to improve safety and maintain highway capacity;
- The establishment of Low Emission Zones (LEZ). Southampton City Council is under significant pressure to implement an LEZ on the western approach to the city centre in order to meet emissions targets. The Council will work with the freight industry to develop a solution.

8	Project Name	Portsmouth City Centre Freight Consolidation Centre
	Scheme Description	A freight consolidation centre could be established on the outskirts of Portsmouth to serve the 'last mile' journey into retail outlets in the city centre. The location of the consolidation centre is unidentified.
	Assessment Comment	Not assessed.
	Strategic Case	By consolidating freight loads it will reduce the number of freight vehicles entering the city centre. It will also provide services including pre-retailing, off-site store rooms, waste and packaging collection (to reduce empty running of vehicles) and the collection of returns. Research from other consolidation centres such as that used to serve Bristol Broadmead retail centre, suggest that such a centre could achieve a 76% reduction in HGV traffic in the affected area.
	Scheme Status	Pre-feasibility

9.5 BUS PRIORITY, BUS RAPID TRANSIT (BRT) AND ENHANCED BUS SERVICES

This section includes the following bus priority, bus service improvements and BRT schemes:

- South East Hampshire Bus Rapid Transit Network
- North Whiteley Bus Service Improvements
- Southampton Eastern Corridor Bus Priority
- Tipner-Horsea Link

Buses are a key component of this delivery plan, providing a sustainable mode of travel. Journey time and bus quality needs to improve to incentivise further bus use. The focus is on those routes that represent commercial propositions.

Capital Expenditure and Operational Expenditure

Bus improvement schemes can consist of expenditure on bus priority (such as new bus lanes or signal improvements) or new buses. This kind of expenditure is referred to as capital expenditure. The running costs associated with bus services are referred to as operational expenditure and result in an ongoing revenue requirement.

Where assessed schemes have led to an increase in the annual operated bus mileage, the following (table 10) cost assumptions have been used to calculate the resulting operating cost increase.

Table 10: Generic P&R Bus Operating Cost Assumptions

Assumption	Value	Rationale
Bus operating cost/km	£3.24 (2010-11)	Department for Transport Public Service Vehicle Survey, October 2011. Value for metropolitan areas of England.
Hours of operation per day	15	7am-7pm, no evening service, 25% additional cost associated with extended layover times.
Days of operation per week	6	Monday to Saturday only
Weeks of operation per annum	52	All year

The operating costs above are inclusive of vehicle depreciation costs and administration, and have been sense-checked. Values for metropolitan areas have been used as a conservative assumption – these are higher than in non-metropolitan areas due to slower operating speeds.

The net change in bus mileage over the 12-hour period is extracted from the SRTM. For all relevant tests, the 60-year present value of the operating cost has been compared against the increase in public transport revenue over the same period to determine whether operations are likely to be commercially viable.

Bus Rapid Transit (BRT)

BRT is a mass transit system which sits somewhere between the 'ordinary bus' with full stopping services and the fixed track railway system. BRT typically features more limited stopping services than the ordinary bus with dedicated or guided routes, bus priority lanes and junction priority forming part or all of the route and at the same time maintaining a flexibility that the railway system cannot provide. BRT typically provides a higher specification service than the ordinary bus showing the latest technological innovations including Wi-Fi, Real Time information and LED lighting etc. to help provide a viable alternative to the car.

9	Project Name	South East Hampshire Bus Rapid Transit (SEHBRT)
	Scheme Description	The scheme tested is the 'viable' long-term network as described in 'South East Hampshire BRT Future Phases Study' May 2012. The SEHBRT is a high profile, mass public transit, statement scheme, linking planned strategic employment and housing sites and key destinations. The scheme will help to encourage economic growth in the area by removing the transport barriers relating to constrained highway access and inherent congestion. The scheme provides a quality alternative to the private car with frequent services and reliable journey times, helping to reduce carbon emissions. Phase 1 of the scheme, completed in April 2012, has been successful, providing a dedicated busway linking Gosport to Fareham. Future Phases are planned to build upon the success of the first phase. Map 5 below shows the longer term network proposition. Map 6 shows an indication of infrastructure measures that could facilitate the delivery of the longer term network proposition. An indicative and initial phased delivery strategy has been developed to assist the delivery of this project which needs to be considered in a flexible context dependent upon funding opportunities, related development timescales and the potential for parts of schemes to be delivered sooner as opportunities dictate. The proposed phasing of BRT is set out below: Short term prior to 2019 • Fareham Bus Station to Gosport ferry – via Priddys Hard completion of on road route • Fareham Bus Station to Gosport ferry – via Anns Hill Rd, completion of on road route • A27 Fareham to QAH • Clanfield – Waterloooville QAH – London Road - Portsmouth, The Hard – A3 ZIP Upgrade / re-branding • Waterloooville – QAH – M275 – Portsmouth The Hard – Southsea • Havant Bus Station – Eastern Rd Copnor Road – Southsea • Havant Bus Station – Portsmouth , The Hard via QAH and London Road OR Copnor Rd Short term prior to 2019 (Subject to timing and funding) • Fareham Bus Station to Gosport ferry – via A32 completion of on road route • Fareham Station / West Street roundabout • North Fareham – Fareham Station – Gosport ferry • North Fareham – Portsmouth via A27 • North Fareham – Portsmouth via M27 • Phase 1A Extension south to Rowner Road • Northern Quarter – Rudmore Road to Unicorn Road • Northern Quarter – Rudmore Road to Unicorn Road – further enhancements Medium term prior to 2026 • Dunsbury Hill Farm – Havant • Havant to West of Waterloooville Major Development Area • Phase 1A off road extension north to A27
	Assessment Comment	Please see comments above. BRT schemes often pose particular challenges where achieving a strong business case is concerned, principally relating to the relationship between the bus, the highway network and the associated travel markets. The key

features of BRT schemes involve prioritisation on highways and typically involve reallocation of highway space. Given the numbers of cars relative to bus users, bus priority measures can often prove damaging to business cases. Establishing a balance of service provision with a genuine prospect of delivering increased bus patronage whilst demonstrably not dis-benefitting other road users is key in order to seek to achieve a 'win win' situation or at least win – neutral outcomes for all highway users and thus provide a robust business case. Effective journey time savings, reduced waiting times and improved interchange facilities are also all essential to help improve BRT user benefits and increase patronage and help support strong business cases. Appraisal of the SEHBRT will be at different levels taking into account the issues highlighted above. Strategic appraisal will seek to capture high level benefits of the complete network proposition, with more focused business cases being prepared on a route by route basis as different parts of the network are put forward for funding and bids prepared.

Strategic Case

The opening of the Eclipse BRT Phase 1 has resulted in a significantly enhanced public transport offer in the Gosport Peninsula with state-of-the-art buses and associated information technology. Journey reliability and improved comfort, combined with real-time arrival and departure information, has provided a step change which is presented in this report as the basis upon which we now need to build moving forward across South East Hampshire.

The opening of the first phase of the scheme is only the start of a much larger project which will improve accessibility and transport choice and will fundamentally help bring forward planned economic and housing growth in parts of the sub-region which are in need of economic growth but suffer from traffic congestion. The delivery of the wider network proposition will help reduce the transport constraints to growth at planned strategic sites coming forward up to 2027 (including Tipner, Horsea Island, Lakeside, Dunsbury Hill Farm, Waterlooville Major Development Area; North Fareham Strategic Development Area, and Gosport Waterfront etc). The BRT network will also provide a critical role in facilitating other development sites as well as other jobs directly created by the construction and operation of the BRT network. The scheme will help unlock the provision of direct and indirect jobs associated with developments including approximately 11,700 new homes at the strategic sites and an estimated 10,000 or more new jobs in the wider area. The scheme is critical to help provide sustainable connectivity with key destinations, reducing journey times and help to improve productivity whilst reducing carbon emissions.

An initial assessment of the SEHBRT future network proposition has been undertaken against the HM Treasury Five Business Cases Framework. In relation to Strategic Case the scheme demonstrates a 'strong' case for funding based upon delivering the following:

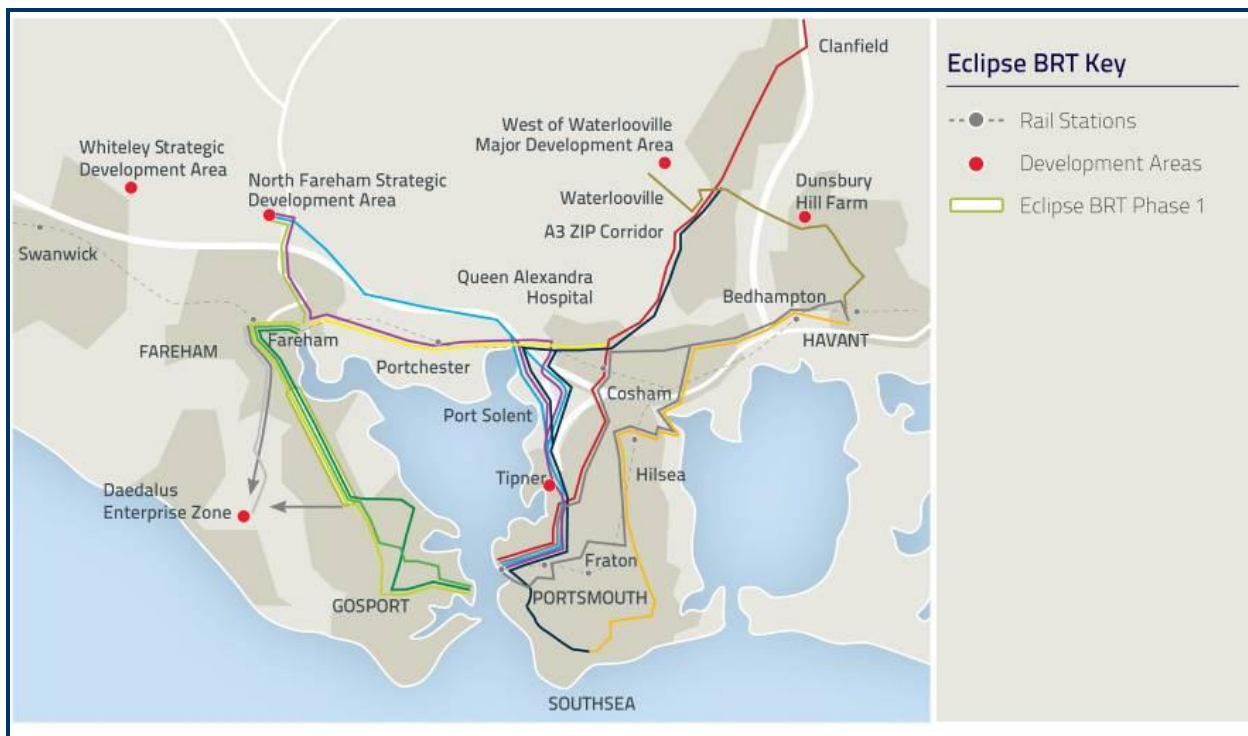
- Improving the overall quality of public transport in the sub-region and providing a viable alternative to the private car;
- Enabling key strategic employment and housing sites by removing the transport barriers to growth;
- Facilitating development and regeneration by providing frequent and reliable mass public transit with journey time savings in central areas;
- Improving access to health services by providing direct links to hospitals and medical centres;
- Improving access to tertiary education by providing links to colleges and schools.
- Improving air quality by reducing car use and helping to alleviate congestion on

particularly constrained parts of the highway network.

Scheme Status

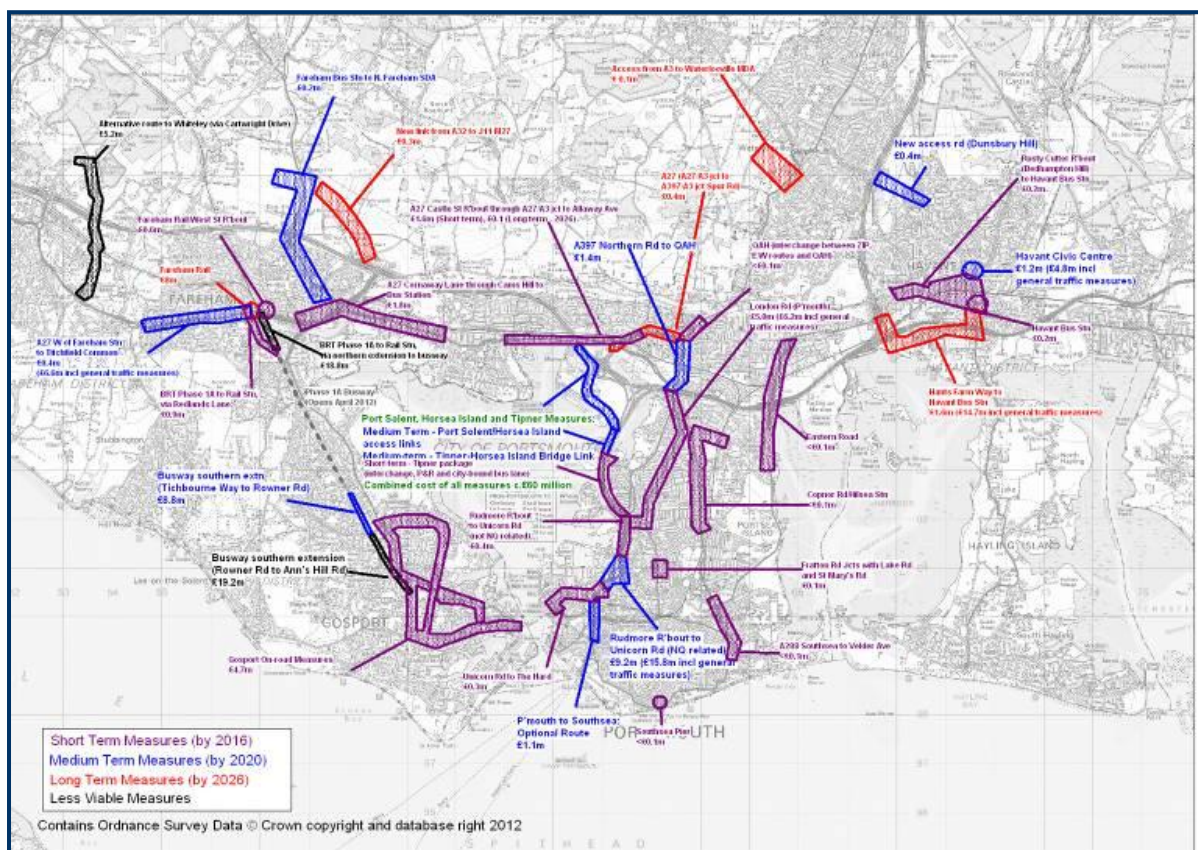
Outline Design

Map 5: Proposed Long-Term BRT Network



Source: Atkins, 2012

Map 6: SEHBRT Potential Infrastructure Requirements*



Source: Atkins, 2012

*Options are likely to be amended as further detailed work takes place.

Scheme Description

This scheme was included in the North Whiteley Transport Strategy. A new bus network for Whiteley has been designed (Map 7) by the County Council, and the proposals consist of two new services which would replace routes 26, 28 and 76/76A. The new services are as follows:

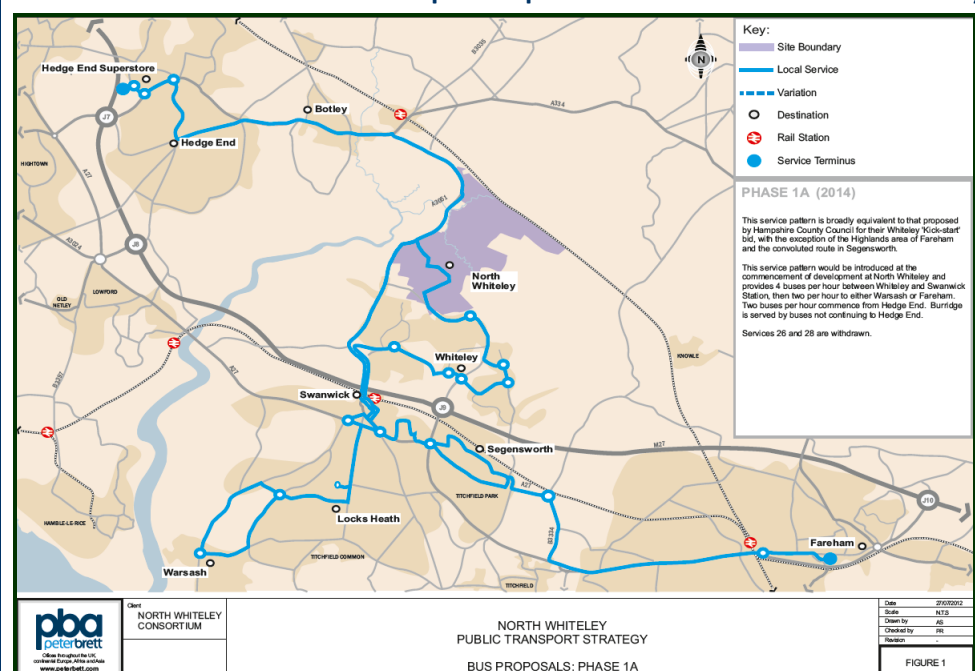
- Fareham – Segensworth – Park Gate – Swanwick – Whiteley - Curbridge - Botley - Hedge End: every 30 minutes Monday to Saturday daytimes between 0700 and 2000; and
- Warsash - Locks Heath - Park Gate - Swanwick - Burrridge - North Whiteley - Whiteley: every 30 minutes Monday to Saturday daytimes (60 minutes to Hedge End) between 0700 and 1900.

These services would provide four buses per hour between Whiteley and Swanwick railway station for connections to Fareham, Portsmouth, Havant and Southampton, as well as providing a step change in frequency and coverage of destinations; this is particularly true of services to the north, where there is no current provision from Whiteley. They would also increase the options for sustainable access to the Segensworth and Titchfield Park industrial areas to the south of the M27.

The proposed service between Fareham and Whiteley replaces routes 26 and 28, and operates from the Bus Station via the rail station and either the A27 (in the off-peak periods) or Highfields (in the AM peak towards Whiteley and the PM peak towards Fareham) between the town centre and Titchfield; from here it would operate via Cartwright Drive to the Titchfield Park area.

This scheme is for the first phase of the North Whiteley development up to around 1,500 dwellings. It would be expected to be pump primed by the developer with such funding tapering off and the service delivered commercially. North Whiteley Phase 2 (1500-2500 dwellings) and Phase 3 (2,500 dwellings onwards) will increase frequencies and include a faster route at times. Such improvements will also be developer funded initially.

Map 7: Proposed New Bus Network for Whiteley



Source: PBA (2012) North Whiteley Public Transport Strategy

Assessment Comment	Please see comments above. This scheme was tested in a package with Waterside Rail (Scheme #19) and Portsmouth – Southampton ‘Skip-Stop’ (Scheme #20).
Strategic Case	The planned expansion of Whiteley includes proposals for around 3000 dwellings on land north of Whiteley and east of A3051 Botley Road including pre-school facilities, two additional primary schools and a secondary school, provision for primary health care and the completion of Whiteley Way are planned for this location. These services would provide four buses per hour between Whiteley and Swanwick railway station for connections to Fareham, Portsmouth, Havant and Southampton, as well as providing a step change in frequency and coverage of destinations; this is particularly true of services to the north, where there is no current provision from Whiteley. They would also increase the options for sustainable access to the Segensworth and Titchfield Park industrial areas to the south of the M27. Assessment has identified that the revenue generated by this scheme will more than offset the additional operating costs, although some initial pump priming (by Whiteley developers) may be needed in practice.
Scheme Status	Outline Design

11	Project Name	Southampton Eastern Corridor Bus Priority (Including Botley Road Bus Link)
	Scheme Description	This scheme comprises three related components: • A new bus-only link from Bursledon Road to West End Road, facilitating a link to Hedge End; and • Extension of LSTF bus priority along the whole length of the corridor. The bus priority improvements involve introducing Automatic Vehicle Location (AVL) at three locations on Bursledon Road, which in combination with the LSTF priority measures provide continuous priority from Windhover roundabout to the city centre. The bus-only link upgrades the existing track between Bursledon Road and West End Road and allows buses travelling from Southampton to Hedge End to avoid Junction 7 of the M27.
	Assessment Comment	Please see comments above. These schemes have been tested against a do-minimum that includes the now-committed LSTF and BBAF schemes. For modelling purposes, AVL is assumed to save each bus movement 8 seconds, but cost car movements 3 seconds. Blue Star route 3 diverts between Southampton and Hedge End via Bursledon Road, Botley Road Bus Link, St. John’s Road and Upper Northam Road instead of Thornhill and Charles Watts Way.
	Strategic Case	Hedge End is a large urban area to the east of Southampton, comprising housing, industry and sub-regionally significant retail. The draft Eastleigh Borough Council Local Plan proposes further growth for this area. Car travel dominates movements between Southampton and Hedge End. A significant improvement in the relative attractiveness of the bus over the car for movements between Southampton and Hedge End could realise mode shift from the car. The journey time improvements that this scheme would afford,

	coupled with quality improvements through LSTF and BBAF would combine to incentivise bus use and reduce congestion on the highway. Overall, the scheme has been to perform very well in value for money terms, being relatively low in cost, and helping to improve sustainable links to Southampton City Centre from the East.
Scheme Status	Pre-Feasibility

12	Project Name	Tipner-Horsea Link
	Scheme Description	• A new all vehicle bridge adjacent to the M275 to provide road access via Tipner and the M275 junction and a public transport only link road to Port Solent. • Improvements to the capacity at Port Way / A27 junction are necessary to facilitate the development at Port Solent and a BRT link to utilise the new strategic public transport access to the city. • Improvements to the access arrangements to the retained Household Waste Recycling Centre (HWRC) and Horsea Island Country Park are necessary as part of the Port Solent development.
	Assessment Comment	Untested as to be progressed as part of development proposals.
	Strategic Case	The adopted Portsmouth Plan identifies that Horsea Island will provide approximately 500 new dwellings. Policy PCS3 (Horsea Island) of the adopted Portsmouth Plan notes that the opportunities at Horsea Island include improving access to Horsea Island Country Park. Port Solent is also allocated for 500 dwellings and the bridge link will enable the transformation of an area which currently has poor public transport access. The provision of this link would make bus and active modes the mode of choice for movements between the growth areas of Port Solent and Tipner and encourage sustainable access into Portsmouth City Centre, relieving pressure on the M27 / M275.
	Scheme Status	Feasibility

9.6 INTERCHANGE IMPROVEMENTS

Interchanges act as key hubs through which transport movements are channelled. Improved integration of travel modes (e.g. through smart-ticketing and co-location), improved information (e.g. through Real Time Information) and improved facilities can result in the increased attractiveness of sustainable modes. The LSTF package and the National Station Improvement Programme are improving interchange facilities in the area, but further improvements have been identified, including at:

- Woolston
- The Hard
- Hedge End Railway Station
- Longer-term interchange Improvements aimed at improving east-west connectivity
- The Isle of Wight
- Gosport Bus and Ferry Interchange
- Public Transport Interchange Improvements, Isle of Wight
- Cross-Solent Interchange Improvements

13	Project Name	Interchange Improvements at Woolston, Southampton
	Scheme Description	This scheme models improvements to the existing interchange at Woolston Station to create a 'seamless' interchange from rail to bus services, primarily aimed at improving access to the south of Southampton City Centre.
	Assessment Comment	-
	Strategic Case	Southampton Central Station is located some distance from the City Centre and a significant distance from the southern parts of the city centre such as Royal Pier, Town Quay, Oxford Street, and Ocean Village. Improving interchange at Woolston would improve the accessibility of these areas by public transport from the east, reducing congestion at the Eastern Dock Gates.
	Scheme Status	Pre-feasibility

14	Project Name	The Hard Interchange, Portsmouth
	Scheme Description	An adopted SPD is in place, which sets the development framework for opportunity sites and highlights the need for a new interchange to maximise public transport accessibility and create a safer, cleaner and more welcoming environment for residents and visitors to Portsmouth.
	Assessment Comment	Not assessed.
	Strategic Case	The Hard area is now within the city centre boundary identified by policy PCS4 of the Portsmouth Plan. Located between Gunwharf Quays and the Historic Dockyard, this important gateway to the city has the potential to deliver approximately 300 residential units, 25,000m² of hotel space, 20,000 m² of office floorspace together with lower levels of retail floorspace. The existing transport interchange is owned by Portsmouth City Council and used by multiple bus services,



	National Express coaches, taxis and is adjacent to Portsmouth Harbour rail station and Gosport & Isle of Wight ferry services. This multi-modal interchange is important for movements between Portsmouth, Gosport, the Isle of Wight and further afield. Improvements to this interchange (complemented by wider measures such as smart ticketing and RTI) can play an important role in reducing car travel and congestion on the highway network.
Scheme Status	Feasibility

15	Project Name	Longer-Term Interchange Improvements to Improve East-West Connectivity
	Scheme Description	This scheme comprises interchange improvements aimed at facilitating east-west movements by public transport by creating hubs at five key rail stations: • Hedge End • Swanwick • Fareham • Cosham • Havant
	Assessment Comment	-
	Strategic Case	This scheme seeks to establish the above five stations as rail hubs (in addition to the key city and airport rail hubs that exist) to which buses would serve. The rail network provides an opportunity to provide a fast, reliable and comfortable alternative to the car. Interchange at stations with other modes (including the car) can incentivise rail use and consequently encourage mode shift and reduce highway congestion. The five stations included within this scheme are stations that are currently well used and are close to key employment concentrations, and therefore, offer opportunities to attract commuters to rail.
	Scheme Status	Pre-feasibility

16	Project Name	Public Transport Interchange Improvements, Isle of Wight
	Scheme Description	Improving the quality of the environment at interchanges through urban realm improvements, introduction of real time information for bus, rail and ferry, and smart ticketing will all be pursued and will play an important part in strengthening the role that public transport can play in supporting the Island economy and improving accessibility. The key interchanges on the Island are at: • Newport • Cowes • Ryde • Fishbourne • Yarmouth
	Assessment Comment	Not assessed.
	Strategic Case	The role that the cross-Solent ports play to the Island economy is strong, providing the gateways for commuting, business and tourist movements. High quality public

	transport interchange facilities with through-ticketing and service integration can vastly improve the customer experience and attract patronage. This package of measures can play an important part in strengthening the role that public transport can play in supporting the Island economy and improving accessibility.
Scheme Status	Pre-feasibility

17	Project Name	Gosport Bus and Ferry Interchange
	Scheme Description	This scheme identifies a need to improve the heavily used ferry and bus interchange in Gosport. No specific options have been identified as proposals may be linked to redevelopment. However there is a need to improve the quality of the bus station, recognising the uplift the bus mode has had from BRT and the needs of other users (ferry, cycling, pedestrian, taxi).
	Assessment Comment	Not assessed.
	Strategic Case	Gosport experiences the highest levels of out-commuting of any district within the TfSH area. This places significant stresses on the highway network at peak times. The short ferry crossing between Gosport and Portsmouth provides a link to employment, retail and other facilities as well as to rail at The Hard. Improved use of this link can reduce congestion on the exit roads from the Gosport peninsula. The ferry link and an improved interchange facility can help form part of sustainable access to the Solent Enterprise Zone,
	Scheme Status	Pre-feasibility

18	Project Name	Cross-Solent Interchange Improvements
	Scheme Description	This scheme refers to identified or potential enhancements to loading and interchange facilities at terminals at both ends of all the Isle of Wight Ferry crossing routes.
	Assessment Comment	Not assessed.
	Strategic Case	The Isle of Wight has a population of about 140,000 and has two major population centres (Newport and Ryde). There is no bridge or tunnel nor are there any scheduled air services to and from the Isle of Wight. This places a reliance on sea transport, and as such, the cross-Solent links represent a critical lifeline for the Island economy. The island's favourable climate and relative proximity to major population centres on the mainland make it more popular for tourism which plays an important role in the Isle of Wight economy, generating some £352m expenditure per year which represents 24% of the island's GDP and supports one in four jobs. The volume of cross-Solent traffic by segment is shown below (2008): • Passenger vehicles – 1.7m Car Equivalent Units • Freight and Coach – 1.4m Car Equivalent Units • Foot passengers – 3.9m passengers While roughly half of foot passenger traffic originates on the mainland, vehicle traffic mainly emanates from the mainland and comprises predominantly tourists. This makes demand for the car ferries very seasonal with much larger numbers travelling in

the summer months.

In the case of Southampton, for example, the existing ferry terminals for the Isle of Wight car ferry services are located within the proposed Royal Pier Waterfront site (a proposed mixed use development). When the Royal Pier scheme progresses, it is anticipated that the ferry terminal facilities will need to be re-located to an alternative location, which would include the provision of new interchange facilities.

Scheme Status	Pre-feasibility
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9.7 RAIL

Rail has the potential to provide a fast and comfortable alternative to the car. A number of rail schemes have been identified, and these are shown in Map 8:

- Waterside Rail
- Portsmouth – Southampton ‘skip-stop’
- Havant to Woking Line Speed Improvements.

Map 8: Assessed Rail Schemes



A number of the rail schemes involve significant timetable changes, and consequently operating costs. For these schemes, the MVA rail operating cost model has been used.

19	Project Name	Waterside Rail
	Scheme Description	Re-introduction of the Waterside Line for passenger services, connecting Hythe with Southampton.
	Assessment Comment	A GRIP 3 study (see below) is currently underway. This scheme will be updated following the reporting of that study. There are 8 ‘GRIP’ stages, the last being the operational stage.
	Strategic Case	A GRIP 3 (Governance for Railway Investment Projects) viability study for the re-introduction of passenger trains on a branch line between Southampton and the Waterside area is currently being progressed for Hampshire County Council. A GRIP 2 study established a business case for a passenger line serving Totton, Hounslow, Marchwood, Hythe and Southampton. The rail line is currently in use for freight trains only and this next technical study (GRIP 3) will focus on: • identifying the infrastructure that would be needed to enable the rail line to be brought into passenger use; • calculating passenger demand; and

	determining how the scheme could be funded. A Waterside rail line could help in reducing congestion on the A326, which plays an important role in connecting the businesses and communities of the Waterside area with Southampton and the M27. Passenger rail services ceased on the existing freight only line in 1966. The case for re-opening the line to passenger services is based on providing an hourly shuttle between Hythe and Southampton Central where passengers would be able to connect to services running to the West, East, London and beyond. An hourly service would mean one train an hour back and forth with a journey time of 23 minutes each way. It is not envisaged that the passenger service would extend to Fawley as this would increase the journey time to over 30 minutes each way and prevent the running of an hourly service.
Scheme Status	Feasibility

20	Project Name	Portsmouth – Southampton ‘Skip-Stop’
	Scheme Description	This proposal involves replacing the existing 1 train per hour (tph) stopping service with 3tph ‘skip-stop’ service, where all trains stop at the busier stations, while only two in 3 (i.e. 2tph) stop at the less busy stations. The service pattern is designed to provide improved frequency and small improvements in journey times for the majority of journeys, while ensuring that all station to station trips currently catered for can be made at least once an hour. This scheme featured in the Network Rail London South East Rail Utilisation Strategy (RUS).
	Assessment Comment	This scheme was tested as part of a package which assumes Waterside Rail is in operation as a passenger service as specified in scheme 19.
	Strategic Case	Despite the two cities being just 32km apart, the journey by rail (using the Netley Line) takes over 40 minutes. This reduces the attractiveness of rail for these journeys and reduces the economic interaction of the two cities. By improving rail journey time the labour pool will be broadened for employers, whilst employees will have improved employment horizons. Increased use of the rail would relieve pressure on the M27. The impacts of the scheme against the KPIs are relatively small. Surprisingly, there is relatively little impact in terms of encourage commuting between the east and west of the core area, nor in terms of jobs generated. However, this scheme has a small overall cost, which is borne by the private sector. This scheme would need to be delivered and funded by the relevant train operating company and is not expected to require any public funding.
	Scheme Status	Pre-Feasibility

21	Project Name	Havant to Woking Line Speed Improvements
	Scheme Description	This scheme tests a notional package of works to improve the line-speed on the Havant – Woking line from an average of 50.7mph to 65mph for fast services, saving 11 minutes.
	Assessment Comment	This is tested as a simple time saving on all services. Note crowding isn’t modelled in the SRTM, so the benefits of this scheme will be over-stated.

Strategic Case	Connectivity between London and South Hampshire is strong. Fast connections are good for business and good for residents. Business tends to have a strong desire to be close to London. Having fast connections to the Capital can improve the attractiveness of South Hampshire and the Isle of Wight as a business location.
Scheme Status	Pre-Feasibility

9.8 WATER

The following water-based schemes have been tested by the SRTM but performed poorly with forecast demand too low to make the services commercially viable.

- Portsmouth – Southampton Ferry (2 vessels, 30 minute frequency, 30 minute journey time)
- Gosport – Southampton Ferry (2 vessels, 30 minute frequency, 30 minute journey time)
- Portsmouth – Port Solent – Gosport Ferry (3 vessels, 30 minute frequency, 20 minute journey time for each leg)

For the purposes of the schemes tested we have assumed operation by one or more small passenger only catamarans, carrying a maximum of 250 people with a maximum speed of 16 knots, and fares were matched to rail fares.

As the above schemes were assessed as poorer performing, they do not form part of this delivery plan.

Portsmouth Park and Sail, between the Portsmouth International Port (PIP) and Gunwharf Quays, has received funding through the Local Sustainable Transport Fund and will commence operations.

9.9 PARK & RIDE

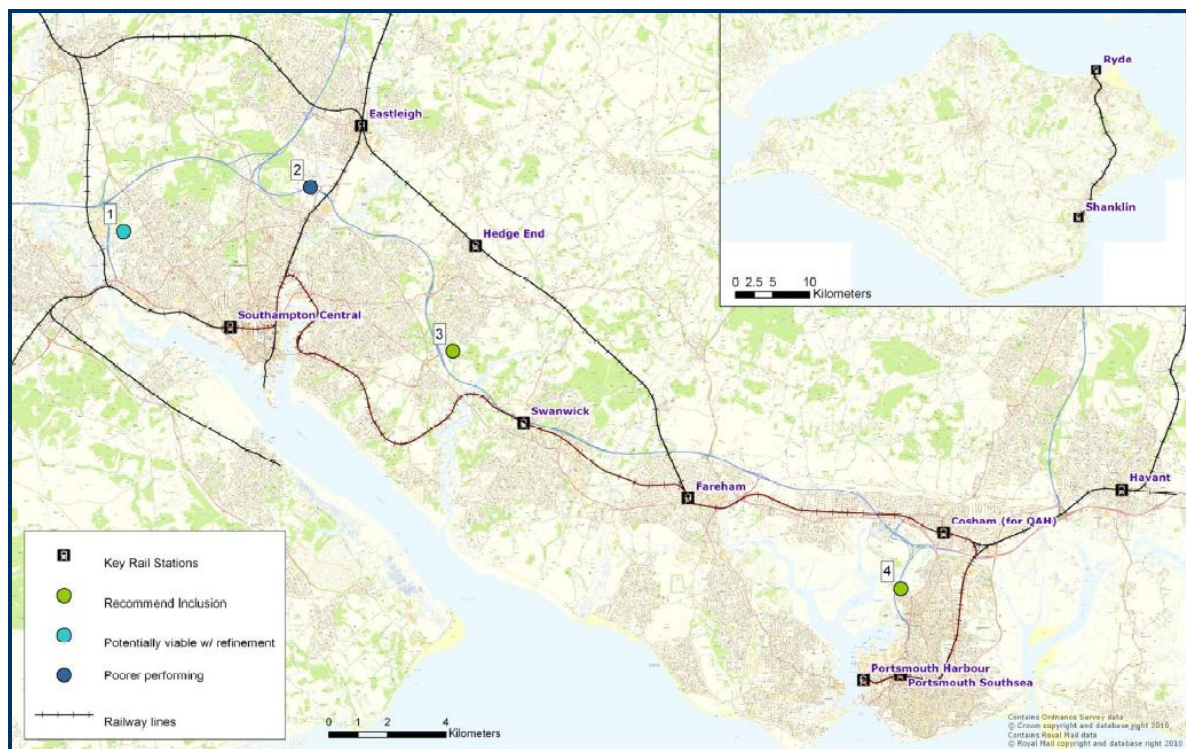
Park & Ride provides an opportunity to intercept car trips on the edge of an urban area. This reduces congestion on radial routes into city and town centres, freeing up capacity for local journeys, and provide environmental benefits. Park & Ride schemes also reduce the need for parking provision in city and town centres and can therefore open up new urban development sites. Appropriate levels of central parking provision and charges are essential to the success of Park & Ride. Often the buses serving Park & Ride require public subsidy, so consideration of Park & Ride bus services within the context of the local commercial bus network is recommended.

Four sites have been tested using the SRTM (Map 9, below). In order to assess the individual impacts of these sites whilst at the same time developing an understanding of how sites may operate collectively, the schemes were added incrementally building up from 1 to 4 sites operating as follows:

- 1 Site – Tipner alone
- 2 Sites - adding Adanac Park (M271 Junction 1)
- 3 Sites – adding M27 Junction 8
- 4 Sites - adding M27 Junction 5

All sites are assumed to be large enough to accommodate all demand, i.e. no constraint is applied.

Map 9: Location of Assessed Park & Ride Sites



Capital costs of £7m (£5m + 40% optimism bias) in 2001 prices have been allowed for each site, carrying forward assumptions used in the earlier Delivering a Sustainable Transport System (DaSTS) study. Annual site maintenance and operating costs of £1m p.a. (2011 prices) have been assumed, covering the following:

- Pay / N.I. / pensions / training
- Office expenses / marketing / utilities / cash collection / CCTV / cleaning / grounds / buildings maintenance
- Business rates

This estimate is based on rates for operation of a site in Cambridge.

The cost used are summarised in Table 11.

Table 11: Generic P&R Bus Operating Cost Assumptions

Assumption	Value	Score / Rationale
Bus operating cost/km	£3.24 (2010-11)	Department for Transport Public Service Vehicle Survey, October 2011. Value for metropolitan areas of England.
Hours of operation per day	15	7am-7pm, no evening service, 25% additional cost associated with extended layover times.
Days of operation per week	6	Monday to Saturday only
Weeks of operation per annum	52	All year

Whilst the Tipner Park & Ride (as described in section 8) site was assessed to perform well, the remaining three sites failed to cover operating costs and as such were assessed to perform poorly.

9.10 HIGHWAY SCHEMES – TARGETED INVESTMENT

This section presents the assessment of highway options that were generated to tackle evidenced current and future constraints on the highway network as a consequence of forecast demand changes and new development, in the aggregate.

22	Project Name	Redbridge Roundabout
	Scheme Description	The objective of this scheme is to reduce delays at the Redbridge Roundabout for the vehicles travelling from the A33 (westbound approach) to the M271. The scheme consists of converting the existing roundabout to a ‘hamburger’ layout arrangement with a direct route through the roundabout from A33 westbound to M271 northbound.
	Assessment Comment	-
	Strategic Case	The scheme tackles congestion at the southern end of the M271 at a key access point to Southampton and the Port of Southampton from the strategic road network. To enable the Port to achieve forecast growth, reliable access to the strategic road network will be required. Southampton is delivering significantly more housing (22%) and office space (31%) growth than any other part of the area. The proposed improvements change the traffic flows within the junction with a significant flow reduction on the east side of the circulatory carriageway as drivers utilise the new ‘through lane’ from west to north. The proposal also increases the relative attractiveness of the A33/M271 for a north-south route, demonstrated through a transfer of around 280 trips (two way) from other local routes. The model is predicting significant reductions in vehicle delays at the A33 westbound slip and Gover Road approaches due to a new link through the junction and lower levels of traffic on the circulatory carriageway.
	Scheme Status	Pre-feasibility

23	Project Name	Northam Rail Bridge Replacement
	Scheme Description	This scheme proposes the replacement of the existing single carriageway road bridge across the railway with a new bridge and dual carriageway to tie in with existing dual carriageway either side of bridge along the A3024.
	Assessment Comment	-
	Strategic Case	The existing single carriageway across the ageing Northam Rail Bridge to the east of Southampton city centre represents a congestion bottleneck with dual carriageway provision either side of the bridge. The width constraint on the bridge, not only causes congestion, but minimises opportunities for provide bus priority and provision for active modes. The A3024 Bitterne Road that runs across the bridge is the main access route from the east to Southampton city centre, carrying significant volumes of car, HGV and bus traffic. Southampton is delivering significantly more housing (22%) and office space (31%) growth than any other part of the area – much of this will be in the city centre.

	Scheme Status	Feasibility
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24	Project Name	Windhover Roundabout Improvements
	Scheme Description	The current arrangement of the Windhover Roundabout includes both the A3025 Hamble Lane and A3024 Bursledon Road operating under traffic signal control. The proposed scheme would provide for the signalisation of the remaining three approaches to the roundabout.
	Assessment Comment	-
	Strategic Case	Windhover roundabout is a key junction on the eastern edge of Southampton, and provides the main egress for the Hamble Peninsula and its Advanced Manufacturing and Marine industries. In addition, a large Tesco superstore is adjacent to the roundabout which attracts a significant number of trips. The roundabout is an existing congestion hotspot and delays are forecast to worsen in the future.
	Scheme Status	Pre-Feasibility

25	Project Name	M27 J8 Improvements
	Scheme Description	This scheme involves the signalisation of M27 junction 8 off slips & Bert Betts Way (at Windhover Roundabout) part time in the am and pm peak.
	Assessment Comment	This scheme has been developed and tested by the Highways Agency.
	Strategic Case	Junction 8 of the M27 is a key junction on the eastern edge of Southampton. It provides access to Southampton from the East, to Eastern parts of Hedge End, and provides the main egress for the Hamble Peninsula and it's Advanced Manufacturing and Marine industries. The roundabout is an existing congestion hotspot and delays are forecast to worsen in the future. Junction 8 of the M27 is linked to the Windhover roundabout by the A3024 (Bert Betts Way). The A3024 (Bert Betts Way) frequently queues back from the Windhover roundabout to the Junction 8 roundabout in the PM peak hour due, in the main, to vehicles having difficulty entering the Windhover roundabout. This can also result in the queue backing up along Dodwell Lane. This is understood to block the M27 westbound off slip entry onto the junction 8 roundabout resulting in a queue on the M27. Due to the queue at Windhover roundabout from traffic heading south along Bert Betts Way as far back as Dodwell Lane through M27 Junction 8, it has been known to block the right turn into Dodwell Lane and therefore can result in a queue back towards junction 8 and in severe cases block the M27 eastbound off slip entry onto the Junction 8 roundabout.
	Scheme Status	Outline Design

26	Project Name	A27 Capacity Improvements - Fareham - Segensworth - Windhover
	Scheme Description	The scheme would widen the single carriageway section of the A27 between Fareham Station and Segensworth and will update traffic signals and improve junctions along this section. Consideration will also be given to capacity and

	junction improvements along the A27 between Segensworth and Windhover roundabout.
Assessment Comment	-
Strategic Case	The A27 is a vital local and strategic artery running east – west across southern Hampshire parallel with the M27. The route forms part of the corridor providing an alternative link between Southampton and Portsmouth for traffic wishing to avoid the motorway and wishing to access local employment sites and destinations. Segensworth and Whiteley are key employment destinations for many residents in the Gosport and Fareham areas and delays on both the motorway and A27 have economic dis-benefits for businesses in the area.. Delays and congestion along this key corridor also have dis-benefits for traffic leaving the Gosport Peninsula and serve as a barrier to growth and further development in this area, including that at the Solent Enterprise Zone. The scheme aims to improve the flow and management of traffic along this important east - west corridor as a local alternative to the M27 and will thus also help traffic leaving Gosport by improving the junction effectiveness. The scheme will help to remove the bottlenecks which are frustrated by changes in carriageway widths and will improve junctions which are not working effectively to manage traffic flow particularly in peak periods.
Scheme Status	Pre-Feasibility

27	Project Name	M3 Junction 9 – A34 Grade Separation
	Scheme Description	A scheme comprising a new direct link (via a flyover) between the A34 southbound and M3 southbound. However, this is just one of a number of options that could be progressed at this junction, but has been tested to provide an indication of the likely Impact that a comprehensive solution to the constraint at this junction could have.
	Assessment Comment	-
	Strategic Case	This scheme is outside of the TfSH area, but represents a critical bottleneck for the Solent economic area and the Port of Southampton in particular. The objective of this scheme is to reduce vehicle delays on the A34 southbound with its junction with the M3 junction 9 and on Easton Lane. In turn there are benefits for other movements at the bottle-neck strategic junction. The junction plays a strategic role of national importance, with significant flows of freight to and from the Port of Southampton, inter-regional movements and tourist traffic to the Port of Portsmouth and the west of England. Model output indicates that the scheme will result in significant traffic flow changes at the junction as vehicles on the A34 southbound approach, use the flyover to access the motorway southbound. No significant changes in traffic flows occur within the local area surrounding the junction. The scheme is forecast to reduce delays for the A34 southbound to M3 southbound movement (by around 20 seconds). Minimal changes in delays are predicted on other parts of the network. The scheme is forecast to produce a moderately positive KPI for 'Linking People to

	Jobs and Key Facilities’.
Scheme Status	Pre-Feasibility

28	Project Name	Controlled Motorways (All motorways in TfSH area)
	Scheme Description	This scheme involves the use of technology to employ variable mandatory speed limits on all motorway links in the TfSH area. No additional motorway capacity would be provided.
	Assessment Comment	As a proxy for Controlled Motorways the speed-flow curves for the motorway links have been amended and in this test the curve has been increased by 10%. It should be noted that there are no actual changes to speed other than those perceived by drivers due to improved reliability.
	Strategic Case	Controlled motorways utilise variable speed limits to reduce the stop-start, shockwave, conditions that can develop during increasingly congested conditions. This smoothing of traffic flow can reduce delay, improve journey time reliability, reduce carbon, and improve safety. This scheme provides an opportunity to improve journey time reliability within existing highway capacity. The motorways in the area provide critical links for both local and strategic movements to, from and through the area. The scheme performs well in value for money terms, if the 10% improvement in speed is assumed. A sensitivity test has also been undertaken with a more pessimistic 5% assumption, with benefits continuing to be realised. The scheme performs well against the economic-related objectives, but as might be expected, performs adversely against emission reduction as it encourages car trips.
	Scheme Status	Pre-Feasibility

29	Project Name	Newport Traffic Improvements - Coppins Bridge
	Scheme Description	Transport modelling undertaken by the Isle of Wight Council identified and prioritised the infrastructure improvements required to improve traffic flow and reduce congestion in Newport. Some of the works required have already been carried out, including the signalisation of the Drill Hall Road / Carisbrooke Road junction and developer enabling works to improve the three arms (north, south-east and west) at Hunnycross Way / Hunnyhill junction required as part of the planning approval to remodel the existing Sainsbury store. The list below indicates the work still to be carried out and the anticipated delivery period. Each of the elements represents a significant piece of work which can be completed individually.
	Assessment Comment	-
	Strategic Case	The road network on the Isle of Wight radiates out from Newport at its centre to the other main settlements which are generally located on the coast. The result of this layout is that traffic can become congested particularly at peak times in and around Newport – in particular Coppins Bridge gyratory, St Mary’s roundabout to the north and other approach roads. Traffic hold ups can occur particularly at

peak times and are exacerbated during the summer season when the Islands population almost doubles.

The Isle of Wight Council is aware of the problem and how traffic congestion can have a detrimental impact on journey time reliability, accessibility to services including the major employers, the Island's hospital, primary retail centre and impact on the local environment including noise and air pollution.

Transport modelling work undertaken by consultants over a number of years on behalf of the council have helped quantify local traffic flows, how these have increased as a result of development and economic activity and how pressure could increase in the future as a result of further planned development in the area.

The resulting report, which was tested at the Examination in Public into the Island Plan – Core Strategy showed that even with improvements to travel by sustainable means - walking, cycling and public transport, traffic congestion in Newport will get worse unless measures are taken to increase road capacity in the road network around Newport.

The [Island Plan](#) adopted in March 2012 recognised in SP7 that highway infrastructure improvements will need to be in place at the following locations by 2020 if we are to facilitate the planned level of growth. These are:

- Coppins Bridge gyratory – including approach roads.
- St Marys roundabout – north of Coppins Bridge.
- Hunnyhill / Hunnycross and Riverway junction.
- Medina Way – from the junction with Riverway to Coppins Bridge.

Scheme Status

Feasibility

9.11 HIGHWAY SCHEMES – DEVELOPMENT RELATED

The schemes in this section have been identified as options to mitigate forecast transport constraints brought about by specific planned or proposed new development, or that support the unlocking of development potential and economic growth. Section 10 provides a summary of the key strategic development sites in the area and sets out where transport infrastructure requirements have been identified or where work is underway to identify specific transport infrastructure requirements.

30	Project Name	Access to Eastleigh River Side
	Scheme Description	Eastleigh Borough Council is currently undertaking a piece of work to identify access options for unlocking the development potential of Eastleigh River Side.
	Assessment Comment	Not assessed.
	Strategic Case	Previous work which considered proposals for a Chickenhall Lane Link Road would have required a capital cost of circa £120m. This level of funding is unlikely to be affordable and as such lower cost access options are being identified by Eastleigh Borough Council to access areas of currently under-used employment land east of the railway between Barton Park and the Airport and unlock the potential of Eastleigh River Side . (See section 10).
	Scheme Status	Pre-feasibility

31	Project Name	Whiteley Way Northern Extension to A3051
	Scheme Description	The scheme consists of extending the existing Whiteley Way to provide a direct access to the A3051 at a new signal controlled junction. The scheme – if delivered – would be funded by developers.
	Assessment Comment	-
	Strategic Case	The objective of this scheme is to improve local accessibility from Whiteley to the 'north', by providing an alternative vehicular outlet from the planned expansion of Whiteley to Junction 9 of the M27. The planned expansion includes proposals for around 3,000 dwellings on land north of Whiteley and east of A3051 Botley Road including pre-school facilities, two additional primary schools and a secondary school, provision for primary health care and the completion of Whiteley Way are planned for this location. At a district level, the model does forecast that Winchester District will experience around 2-4% increase in highway demand and around 11% increase in public transport demand (from a very low base), while active modes will reduce by between 3% and 4%. The proposed improvements increase the level of traffic on Whiteley Way (by around 900 two way trips) as traffic transfers from other north-south routes such as the A3051 (south of the new Whiteley Way connection) and the A32. Due to the transfer of trips to Whiteley Way, significant reductions in delays are forecast for the remaining vehicles on the A3051. Overall, the scheme provides good value for money, and scores well against three of the five KPIs. The reduction in emissions arises due to savings in journey distance for a number of highway movements facilitated by the scheme.

	Scheme costs of £20.0m (2011 prices) have been assumed. The scheme would only be delivered through developer funding.
Scheme Status	Feasibility

32	Project Name	M27 Junction 9 (Whiteley)
	Scheme Description	The scheme would provide a free-flow lane from Whiteley Way south-bound to the eastbound on-slip of M27. A bus only lane would also been provided on the circulatory carriageway at Junction 9.
	Assessment Comment	-
	Strategic Case	Whiteley is a large business park and housing estates with significant retail and leisure facilities. This scheme would ease congestion at junction 9 of the M27 for east-bound traffic from Whiteley. The provision of a bus lane would incentivise bus use, at this car dominated location. The impact of this scheme on traffic flows is limited to the immediate vicinity of the scheme with approximately 1,200pcus transferring from the existing roundabout onto the new slip road in the AM peak period by 2019. Due to the transfer of trips onto the new slip road there is some small delay on the existing eastbound slip road and a higher level of delay (23 seconds) where the slip road joins the M27.
	Scheme Status	Pre-Feasibility

33	Project Name	M27 Junction 11
	Scheme Description	The scheme tested includes: • Boarhunt Road Entry Signalised • Additional circulatory lane adjacent to the Boarhunt Road entry. • Additional lane on M27 eastbound off-slip. • Additional lane on A27 entry to roundabout. • New segregated left turn lane from M27 westbound off-slip to A27. Separate proposals for this junction are being developed as part of the work in support of the New Community North of Fareham (see section 10). The scheme tested responds to an identified constraint but is just one of a number of options that could be considered for improvements to this junction ranging from low to high cost.
	Assessment Comment	-
	Strategic Case	This junction is already in excess of its design capacity in the peak period. Improvements at this junction aim to increase capacity and reduce congestion on approaches to J11. This will support economic growth on the constrained Gosport Peninsula and in particular, the Solent Enterprise Zone. The scheme will also improve safety.
	Scheme Status	Pre-feasibility

Scheme Description

Transport infrastructure is the key constraint in unlocking the strategic employment site. Transport requirements include:

- Access via junction 3 A3(M) and the ASDA roundabout (Hulbert Road/Purbrook Way), which will be a significant road improvement scheme for the Leigh Park area
- There will be a transport link to Leigh Park through the Dunsbury Hill Farm development that will comprise of a public transport corridor, providing access for buses, pedestrians and cyclists, as well as private vehicles to the development site. This link will provide a west to east link across the borough that will bring significant social benefits
- HBC/HCC have also identified the need for a pedestrian link across Junction 3 of the A3(M) from Waterlooville to Dunsbury Hill Farm.

No funding is currently secured for Dunsbury Hill Farm, for which infrastructure costs are expected to be circa £8-10m.

Assessment Comment

-

Strategic Case

Dunsbury Hill Farm is located on undeveloped land between Waterlooville and Leigh Park on the north western side of Havant Borough. The site lies immediately to the east of the A3(M) Junction 3, which links London to Portsmouth and Southampton. The residential area of Waterlooville lies to the west of the site, while the Leigh Park estate lies to the east.

The 20.2 hectare's at Dunsbury Hill Farm was included within the Havant Borough Core Strategy, which was adopted March 2011 following an extensive public consultation and examination by government inspector. It is identified as a strategic site critical to achieving the Borough's Core Strategy vision. The delivery of the site will be split into two phases:

- Phase 1 – 46,450m² of employment floor space (including Enterprise Centre), 5,574 sqm of hotel floor space
- Phase 2 – 15,329 m² additional employment floor space

Dunsbury Hill Farm represents a deliverable transformational opportunity for the sub region and directly delivers the LEPs vision and strategic priorities with significant GVA and Employment Growth benefits.

Progress to Date:

Adopted in Havant Core Strategy March 2011.

- Planning application submitted by Portsmouth City Council (PCC) to Havant Borough Council (HBC) August 2012;
- Planning permission is expected March 2013.
- Transport assessments are being prepared and are expected to be completed and agreed by the end of 2012 by HBC and PCC;
- The Highways Agency objections to the scheme have been mitigated;
- HBC/HCC/PCC have agreed the principle of highway improvement needed for the area.

Scheme Status

Outline Design

10. SUPPORTING STRATEGIC DEVELOPMENT

This section provides a summary of the strategic development planned for the TfSH area and the related transport considerations. The funding of the associated transport measures in support of these developments is expected to be funded (at least in part) by development promoters and so they are unlikely to form the basis of bids for 100% public funding where there is no agreement for future repayment of that funding.

Adanac Park

Adanac Park is a 75,800m² development of a new office and high tech Business park on the outskirts of Southampton adjacent to the M271 junction 1. There are two phases to the sites development, the first being the Ordnance Survey Headquarters with a floor space of 16,409m² and Phase 2 consists of a further 4 plots on the area north of the OS site to be built totalling 46,300m².

Planning Permission has been approved for the site. The Ordnance Survey building was opened in late 2010 with approximately 1,000 staff while Phase 2 will be completed as the developers find buyers.

Adanac Park will eventually house approximately 4,000 staff with the Ordnance Survey already having 1,000. Ordnance Survey has 546 car parking spaces with an additional 1,972 spaces planned for Phase 2.



A Transport Assessment was completed in August 2007 and made plans for access improving the developments surrounding infrastructure. These included the following:

Phase 1 (Ordnance survey. Completed)

- Access roundabout off Brownhill Way
- Pedestrian Crossing at Frogmore lane
- Removal of roundabouts and implementation of traffic signals at Frogmore lane

Phase 2 improvements to be completed when the remainder of the site is being developed:

- M27 J3 capacity improvements
- M271 J1 capacity and cycle/pedestrian improvements
- Creating dual carriage way on Brownhill way between Adanac Park Roundabout and M271 J1
- Toucan Crossing on Brownhill Way



These Schemes are funded by the developer and secured under a Section 106 Agreement.

As part of the development agreement a Travel Plan was agreed combining Local Travel Plans from Local Authorities. A key part is reducing single occupancy car journeys with cycle, pedestrian, car-sharing and public transport schemes.

Eastleigh River Side

Eastleigh River Side lies immediately to the east of Eastleigh town, divided from it by the main London-Weymouth railway line which forms the western boundary of the site, and bounded by the Itchen Valley to the east. It encompasses Barton Park, industrial development off Chickenhall Lane and Tower Lane, the Chickenhall Lane waste water treatment works, the former railway works off Campbell Road, the green field Northern Business Park site and Southampton Airport and the adjoining Southern Business Park. It also includes three residential streets at Campbell Road, Barton Road and Dutton Lane and industrial development north of Bishopstoke Road.

In preparing the revised PUSH Economic Development Strategy, DTZ reviewed the anticipated net additional employment that could be provided by the main sites in Eastleigh River Side as follows:

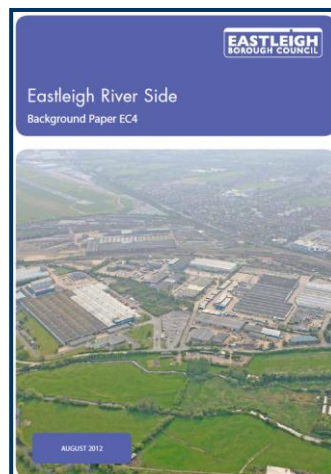
- Former railway works 10,000 m²
- Northern Business Park 131,600 m²
- Prysmian land 21,000 m²
- **Total 162,600 m²**

Development on the different sites would be predominantly employment use but some housing may be likely.

The River Side Site is identified in the Eastleigh Borough Council (EBC) Pre-submission draft of the Local Plan (2011-2029). Policy E10, Eastleigh River Side. "The Borough Council will promote the regeneration of Eastleigh River Side through the redevelopment of existing industrial premises and development of green field sites north-east of the airport and off Chickenhall Lane ..." (EBC Local Plan Pre-submission consultation, available at: www.eastleigh.gov.uk)

To fully realise the redevelopment potential of Eastleigh River Side, and the benefits to the town centre of reducing through traffic, a link road through the site would need to be completed. Various route options have been examined by Hampshire County Council, all of which involve substantial engineering works. Cost estimates have risen steeply, and it is now unlikely that redevelopment/ development of the site could generate sufficient funding in the short-to-medium term to pay for the infrastructure requirements.

EBC is currently looking at lower cost access option,



Ford Site, Swaythling

In October 2012 it was announced that the Ford plant at Swaythling in Southampton, which has manufactured Transit vans for 40 years, is to close in July 2013, resulting in 500 jobs losses.

The site represents a key asset for the area, as do the skilled employees. The site is adjacent to Junction 5 of the M27, a mainline railway station (Southampton Airport Parkway) and Southampton International Airport, making it extremely attractive. It is unlikely that significant infrastructure constraints for unlocking the site for new development exist.



The Solent Local Enterprise Partnership (LEP) Board met soon after the announcement and agreed a three-point response plan, in order to ensure the city and wider region are prepared to hit the ground running following Ford's departure next year. The three point plan includes:

- A multi-agency task force has been established consisting of officers from the Solent LEP, Southampton City Council, Eastleigh Borough Council and other key agencies such as Job Centre Plus. The group will work in partnership with Ford until the plant closes its doors next summer in order to ensure appropriate support is in place for the employees and SMEs that will be affected. Areas of work will include ensuring those affected have access to the skills and training support on offer, alongside more traditional forms of

support such as assistance finding new employment through Job Centre Plus.

- The Solent LEP has been awarded £2m in funding to roll out the successful Bridging the Gap Funding programme to Southampton and the Isle of Wight. In light of the Ford closure, the Solent LEP are working with the Department for Business, Innovation and Skills (BIS), to accelerate the roll out of this programme and ensure it is in place as soon as possible to cover those workers at Ford who may be looking at self-employment as an option and those SMEs in the Ford supply chain that will require support recalibrating their business. In addition, the Solent LEP have requested the remit of the scheme be broadened so that those affected by the Ford closure can be supported, even if they do not fall within the Southampton local authority boundary. The Solent LEP will be requesting additional funding from government in order to establish a business transformation programme to support supply chain SMEs in developing new markets and customer bases in the absence of Ford.



- The Solent LEP recognise that the Southampton Ford Transit Plant is a prime business location in the city and the LEP, in partnership with Southampton City Council, will be seeking to secure a long term future for the site linked to job creation. Southampton City Council

officers will be exploring the possibility of establishing a Local Development Order (LDO) for the site which will result in simplified planning processes for high value companies creating significant job opportunities on the site.

New Community North of Fareham

The New Community North of Fareham (NCNF) is planned to be developed on a greenfield site located to the north of Fareham town centre and north of the M27 to the east and west of Junction 10. Four options are currently being considered for the site which comprise between 5,400 and 7,500 homes along with between 65,300 to 87,700 sq. m of employment floorspace. The site boundary varies with each option. Whichever option is progressed the site has a number of physical, environmental and transport constraints which require very careful master-planning in order to balance and resolve issues. The transport options currently being considered include the provision of a new link road from the A32 north of the M27 to M27 junction 11 along with improvements to Junction 11 or alternatively to or as well as the upgrading of the M27 Junction 10 to an all moves junction. Testing using the SRTM is currently underway to identify the best way forward in terms of reducing the transport options to a single preferred option; identifying appropriate on site measures to assist high levels of self-containment, reduce and manage mitigation along with appropriate highway mitigation.

In 2011 Fareham Borough Council adopted its Core Strategy setting out the vision for the next 15-20 years for the whole Borough. The Core Strategy established the principal of a NCNF and the Borough Council are now in the process of producing an Area Action Plan which will set out the details of what the site will be like and how it will be accessed. The current programme allows for the identification of a 'Preferred Option' in Winter 12/13; Pre- Submission Draft Mid 2013; Public Examination Spring 2014; and Adoption of the Area Action plan summer 2014.

Delivery timescales will be dependent upon the submission and approval of Planning Applications from respective developers. Assuming Planning Consents are granted it is currently envisaged that the development could commence in early 2015.

Borough Council officers are currently working closely with the Highways Authority and Highways Agency along with the developers to produce the transport evidence base using the SRTM which will be then used in due course to inform Transport Impact Assessments.

Transport costs cannot be determined until mitigation has been clearly identified however it is envisaged that costs will need to be met by site developers.

North Whiteley

Around 3,000 dwellings on land north of Whiteley and east of A3051 Botley Road are allocated in the Draft [Winchester City Council Local Plan Part 1](#), including pre-school facilities, two additional primary schools and a secondary school, provision for primary health care and the completion of Whiteley Way at an early stage of development, in an environmentally sensitive manner which does not cause undue severance for the new community or encourage traffic from adjoining areas to use the new route to gain access to the strategic road network.

Delivery of the strategic site is expected over a 10 -15 year period beginning in 2014.

A development specific transport assessment is being carried out by PBA on behalf of a developer consortium. This work has been underway for 2 years during which time an agreed Movement and Access Strategy has been prepared setting out a viable highway, public transport and active mode intervention package. More detailed transport assessment work including a SATURN model has been developed and Base agreed.

Access via M27 J9 (ultimately from a new arm off Whiteley Way) and 2 new highway connections onto A3051 Botley Road via new signal controlled junctions will be required as part of any development.

A full multi-model access strategy will include:

- Highway improvements on Whiteley Way, A3051, M27 J9, Segensworth roundabout and Swanwick Lane.
- Pedestrian and cycle improvements between Botley Rail Station – North Whiteley – Segensworth,
- A new local bus service North Whiteley – Fareham and a new strategic bus service Hedge End- North Whiteley – Fareham.

These will need to be funded by the developer(s).

Solent Enterprise Zone

The designation of the former HMS Daedalus airfield in Stubbington and Lee-on-the-Solent as the Solent Enterprise Zone signalled a step change in efforts to deliver in the Gosport peninsula the aspirations of the Solent Local Enterprise Partnership (Solent LEP) and the Government for rapid development and job creation.



Outline planning permission is close to being granted at Daedalus for 1m sq ft of business space with a focus on the Aerospace, Aviation and Marine Industries, together with retail, community uses and 200 homes.

Full delivery of the zone is envisaged over the period to 2026, however a first phase of on and off site measures has been identified by the Solent LEP for early stage delivery in the period to 2017, utilising investment from the LEP Growing Places Fund.

The Transport Impact of the Daedalus development has been assessed as part of the planning process and a full package of integrated transport measures has been identified by way of mitigation and will be secured by a Section 106 Agreement. The transport measures include:

- The construction of 4 new site access junctions, the opening of existing access routes into Lee-on-the-Solent and the provision of an East West link road for local traffic access
- A contribution towards the delivery of highway infrastructure, as identified in the Strategic Access to Gosport Study, with a focus on investment in the Newgate Lane corridor
- Traffic management and mitigation measures in Stubbington
- Enhancements to the bus fleet and passenger waiting facilities in the locality and on site
- Pedestrian and cycle linkage from the site to the wider network serving the Gosport peninsula

- Travel planning to encourage sustainable access to the site

Southampton City Centre

Southampton city centre has been identified as a significant regeneration area, which includes proposals for a mix of office, retail, residential and leisure development. This builds on regeneration over the last 10 to 15 years, which has seen considerable strengthening of the retail offer, new office and leisure development and a large increase (60%) in the city centre resident population.

In transport terms, city centres are the most sustainable location for development. They are accessible by a wide range of transport modes and the concentration of a range of different land uses within a small geographical area, minimises the need to travel. People can make a single multi-purpose journey to the city centre, instead of separate journeys to different destinations. For people that live and / or work within a city centre, many of their daily needs are only a short walk away.

Planning Policy

The City of Southampton Core Strategy, which was adopted in 2010, has defined overall development targets for the city centre for the 2006 to 2026 twenty year period. In the light of the recent, more challenging, economic conditions, a partial review of the Core Strategy is currently being undertaken, which proposes to reduce the city centre B1 Office development target. However, the ambition remains to deliver the original Core Strategy development targets in the longer term. The proposed development targets for the city centre are shown in Table 12:

Table 12: Southampton City Centre Development Targets 2006 to 2026

	Core Strategy Partial Review	Adopted Core Strategy
B1 Office (m²)	120,000	322,000
Residential (units)	5,540	5,540
Comparison Retail (m²)	130,000	130,000
Leisure	Improved offer identified without a specific floorspace target	Improved offer identified without a specific floorspace target

The City Centre Action Plan (CCAP), which was subject to a pre-consultation in early 2012, defines in more detail where the proposed development will be located. The CCAP will be submitted in early 2013 and following an Examination in Public in late summer 2013, should be adopted in Spring 2014.

The CCAP is supported by the City Centre Master Plan (CCMP), which was completed in 2012 and was produced by a multi-disciplinary consultancy team, led by David Lock Associates. The CCAP demonstrated how the Adopted Core Strategy development proposals could be accommodated within the city centre. This included a number of VIP projects across the city centre.

Proposed Development

A large proportion of the proposed redevelopment in the city centre is in the Major Development Quarter (MDQ), which covers the reclaimed land in the western part of the city centre between Central Station in the north and the Royal Pier area to the south. This is currently occupied by low density retail units and light industrial uses, but also includes the West Quay Shopping Centre and IKEA store, which would be retained. The first phases of new development in the MDQ are likely to involve regeneration around Central Station (the Station Quarter), Royal Pier, a major mixed use waterfront scheme and West Quay Watermark, which will extend the West Quay shopping centre with an improved leisure offer. In terms of progress, West Quay Watermark has outline planning consent



and Morgan Sindell Investments Ltd have been selected as the preferred developer for the Royal Pier scheme.

Other important areas include the Fruit and Vegetables market area, which offers the potential for high density mixed use development in the southern part of the city centre. Planning permission is being sought for the first phase of this scheme. In the eastern part of the city centre, the Itchen Waterfront scheme provides the opportunity for riverside development. The former Town Depot site is likely to be the first element of this scheme. Further phases are likely to progress in the medium to longer term

Other recent development within the city centre since 2006, includes Carnival UK's new office headquarters, an IKEA store, ongoing residential development and expansion of the leisure offer in the Cultural Quarter. This includes the Sea City Museum, which opened in 2012 and the Arts Complex by Guildhall Square, which is now under construction.

Transport Evidence

The Adopted Core Strategy was supported by a Transport Background Paper, which considered how the additional transport demands generated by the proposed city centre development could be accommodated. During peak periods, this increase would be in the region of 40%. The overall strategy proposed in the Background Paper was for a sustainable approach to increase the number and proportion of journeys made by cycle, foot and public transport, to minimise the increase in car usage. A spreadsheet model was developed to undertake the calculations. This demonstrated that the increased travel demands could be accommodated, with ongoing improvements to walking, cycling and public transport together with some selected investment in key areas, such as Platform Road and the Eastern Access corridor, which was predicted to see the largest increase in travel demand. The Paper identified that there would still be an increase in car demand of around 10%, but anticipated that this could be accommodated through peak spreading (where the duration of peak hour is extended).

A revised Transport Background Paper will be produced for the CCAP. The revised development targets in the Core Strategy Partial Review significantly reduce additional travel demands compared to before. This can be accommodated with a lower rate of behavioural change to alternative travel modes. It is also likely that some of the interventions previously identified (e.g. Park and Ride) will not be necessary in the short to medium term (as outlined in section 9).

The CCMP consultant team included Peter Brett Associates (PBA) and Gehl Architects, who between them made a number of key recommendations relating to transport and public realm. Gehl Architects identified that the city centre has a number of strengths, most notably its compact size, meaning that most destinations are accessible within a short walking distance. However, the work also identified the poor quality of many pedestrian routes. In particular, the Inner Ring Road was identified to cause a number of severance problems and a poor quality environment for pedestrians and cyclists. The CCMP has recommended that the Inner Ring Road is transformed into a series of civilised City Streets. Whilst these would still retain a traffic movement function, their design would provide a much higher quality environment for pedestrians and cyclists. There is also the scope in certain locations to reduce the extent of highway to facilitate redevelopment.

Buses are the main alternative mode to the private car for journeys to and from Southampton city centre. The CCMP made recommendations to revise bus routeing within the city centre, to improve the quality of the central core. Further detailed work is being undertaken by PBA to examine this issue in more detail and identify the infrastructure requirements to support the predicted future growth in bus usage. This work will provide part of the transport evidence for the CCAP.

Transport Development and Requirements

Following the success of a number of bids within Southampton and across the South Hampshire area through TfSH, a number of transport interventions that support regeneration in

Southampton city centre have recently secured investments (as set out in section 8):

- Platform for Prosperity
- Local Sustainable Transport Fund
- Better Bus Area Fund
- Pinch Point Funding to improve the capacity at Junctions 3 and 5 of the M27, which serve Southampton.

Many of these are supported by match funding contributions from the Local Transport Plan and developer contributions

The previous priority in Southampton was to secure funding towards interventions to increase transport capacity on key corridors serving the city centre, particularly the Eastern Access. The revised development targets in the Core Strategy Review have reduced the future transport impact on these corridors and in any case, the recent funding successes highlighted above, will address this in the short to medium term. This had led to a shift in priority towards the city centre itself. The work identified in the Master Plan to transform the Inner Ring Road into a series of civilised **City Streets** is now seen as a higher priority for future transport investment. This will promote and enable sustainable economic growth within the city centre, creating an environment that positively promotes the use of sustainable travel modes and raising the level of urban quality that makes the city centre a much more attractive place to visit and invest. The **City Streets** project is likely to require in the region of £50m to £75m of investment over a ten year period.



It is possible that transport interventions will be required on radial corridors serving the city centre in the longer term. However, this will only be necessary if regeneration in the city centre leads to transport demands that cannot be accommodated through increased levels of walking, cycling and public transport use, for which considerable investment has already been secured. At a national level, traffic flows on urban roads are now no higher than 1993. This is despite significant amounts of urban regeneration over that period and even taking into account the recent downturn, an overall increase in economic activity. This emphasises that the first priority is to invest in the city centre to enable regeneration.

Funding

In the short term to 2015, the success in securing funding through the Regional Growth Fund, Local Sustainable Transport Fund and Better Bus Area Fund is enabling the delivery of a range of transport interventions, which will help support city centre regeneration. These are supported by the City Council's Local Transport Plan Integrated Transport monies, together with site specific and strategic development contributions.

In terms of developer contributions, the City Council is proposing to introduce a Community Infrastructure Levy (CIL) in 2013. The evidence produced for the CIL identified that transport was a key driver to secure funding.

Looking beyond 2015, the Devolved Major Schemes funding would be seen as a priority to deliver the **City Streets** project, supported by local contributions.

The City Council will be agile to securing funding as this becomes available, as demonstrated by recent successes with the Regional Growth Fund and Local Sustainable Transport Fund. The potential offer for a City Deal with Portsmouth may provide additional opportunities to dedicate funding towards transport interventions.

Tipner

Proposals

The adopted Portsmouth Plan identifies that Tipner will provide housing, employment and community facilities with improved access, a park and ride facility and cycling and walking facilities to and from the city. It is proposed to deliver 1,250 new dwellings, a park and ride site and 25,000m² of employment floor space.

The following planning permissions have been granted for land at Tipner east of the M275; Construction of new motorway junction, Construction of Park and Ride facility, 80 dwellings and 615 m² commercial floorspace, and 518 dwellings. No applications to date for land west of M275 have been received.



Delivery Timescales

- Motorway junction completion in 2014
- Park and ride completion 2014
- 80 dwellings - anticipated site start 2014 (land remediation currently on site)
- 518 dwellings – outline planning permission valid to 2019

The [Portsmouth Western Corridor Transport Strategy](#) considered the impact of, and mitigation measures required, for all proposals in the Portsmouth Plan. Site specific Transport Assessments will be required for specific development proposals.

The master plan for the area proposes:

- 1,600 new homes (of which 30% are proposed to be affordable housing)
- 25,000 sq m of employment for 1,500 new jobs
- a high-quality park and ride
- a hotel
- a residential tower
- waterside public open space
- a new motorway junction.

Waterlooville Major Development Area

This development will provide an urban extension to the west of Waterlooville connecting to Waterlooville town centre to form a fourth quadrant of the town. Planning consent is granted for up to 3,000 dwellings with a local centre, two primary schools, nursery, employment uses, associated amenity space, allotments, cemetery, and main pumping station.

Approximately 100 dwellings have been constructed and area occupied. The long term delivery of remaining dwellings will be phased over the next 15 years or so.

A transport assessment has been carried out and is satisfactory. The transport requirements funded by developers include:

- 1 x signal junction on B2150 (constructed)
- 1 x priority junction on B2150 (constructed)
- Main roundabout access Maurepas Way/ Asda (constructed)
- 1 x priority junction on A3 London Rd and Milk Lane
- 1 x roundabout access at A3 London Rd/ Ladybridge Road

11. THE DELIVERY PLAN

11.1 DELIVERY PLAN SUMMARY

The schemes identified in section 9 are summarised (for ease of reference) in table 13. The 33 schemes represent the schemes for which we will seek to identify investment opportunities for the period to 2026. The key below identifies the role of operators and non-LTA network providers in the delivery of schemes:

Key:

	Commercially Operated
	Funded by Non-LTA Network Delivery Body

It is expected that, for each project, a mix of funding sources is likely to be pooled to realise delivery.

The development-related transport provisions set out in section 10 also form part of the overall delivery plan, and these will flow into table 13 as proposals are finalised.

As noted in section 1.3, this plan should be considered a live document and will be reviewed at six-monthly interval. This plan reflects current planning and growth assumptions, but as these change this plan needs to adapt and be refined.

Table 13: Delivery Plan and Scheme Status

Scheme Type	Scheme #	Scheme Name	Scheme Status
Transport-Led Urban Regeneration	1	Southampton City Streets Phase 1: • Southampton Station - North and South • Civic Centre Place	Detailed Design
		Southampton City Streets Phase 2: • Charlotte Place Roundabout • Six Dials, Kingsway / Green Mile and Threefield Lane • Town Quay / Western Esplanade (Site 5) • Bargate	Detailed Design
	2	Portsmouth City Centre: Commercial Road Shopping Area, North of Market Way, Station Square, and Station Street and the Guildhall Area	Feasibility
	3	South Hampshire Primary Local Centres	Pre-Feasibility
Walking & Cycling	4	Wider Roll-Out of LSTF Walking & Cycling Investment Programme	Pre-Feasibility
	5	Strategic Cycle Links	Pre-Feasibility
	6	Maintenance of LSTF Travel Choice Components	Detailed Design
	7	Technology & Home-working	Pre-Feasibility
Managing Freight	8	Portsmouth Freight Consolidation Centre	Pre-Feasibility
Bus Priority, Bus Rapid Transit (BRT) and Enhanced Bus Services	9	South East Hampshire Bus Rapid Transit (SEHBRT)*	Outline design
	10	North Whiteley Bus Service Improvements	Outline Design

	11	Southampton Eastern Corridor Bus Priority (Including Botley Road Bus Link)	Pre-Feasibility
	12	Tipner-Horsea Link	Feasibility
Interchange Improvements	13	Interchange Improvements at Woolston, Southampton	Pre-Feasibility
	14	The Hard Interchange, Portsmouth	Feasibility
	15	Longer-Term Interchange Improvements to Improve East-West Connectivity	Pre-Feasibility
	16	Public Transport Interchange Improvements, Isle of Wight	Pre-Feasibility
	17	Gosport Bus and Ferry Interchange	Pre-Feasibility
	18	Cross-Solent Interchange Improvements	Pre-Feasibility
Rail	19	Waterside Rail*	Feasibility
	20	Portsmouth – Southampton ‘Skip-Stop’	Pre-Feasibility
	21	Havant to Woking Line Speed Improvements	Pre-Feasibility
Highway Schemes – Targeted Investment	22	Redbridge Roundabout	Pre-Feasibility
	23	Northam Rail Bridge Replacement	Pre-Feasibility
	24	Windhover Roundabout Improvements	Pre-Feasibility
	25	M27 Junction 8 (Windhover)	Outline Design
	26	A27 Capacity Improvements: Fareham – Segensworth - Windhover	Pre-Feasibility
	27	M3 Junction 9 – A34 Grade Separation	Pre-Feasibility
	28	Controlled Motorways (All Motorways in the TfSH Area)	Pre-Feasibility
	29	Newport Traffic Improvements – Coppins Bridge	Outline Design
Highway Schemes – Development-Related	30	Access to Eastleigh River Side	Pre-Feasibility
	31	Whiteley Way Northern Extension to A3051	Feasibility
	32	M27 Junction 9 (Whiteley)	Pre-Feasibility
	33	M27 Junction 11 (Fareham)	Pre-Feasibility
	34	Dunsbury Hill Farm, Havant	Outline Design

*Services would be commercially operated

11.2 LINKING THE DELIVERY PLAN TO OUTCOMES

The interventions set out in sections 8-10 are directed at achieving sustainable economic growth in accordance with the Outcomes set out in section 3.2.1.

Section 8 sets out the schemes which have been, are being, or are soon to be delivered. These have been developed within the context of supporting sustainable economic growth. Indeed, the TfSH LSTF and BBAF projects have been developed as part of this delivery plan and share the same Outcomes. These schemes represent early deliverables of this delivery plan.

Section 9.1 identifies the significant role that transport-led urban regeneration schemes will play in securing an urban renaissance and achieving the 'Cities First' Outcome. These schemes aim to encourage both people and business back to urban centres and as a consequence realise a concentration of active mode trips in the urban core. With central urban areas well-served by public transport these locations provide an efficient and effective opportunity for public transport to play a central role in supporting growth. By providing an alternative to the private car for access to city and town centres, congestion on radial highway routes can be relieved, strengthening the role of our international gateways.

Transport-led urban regeneration also offers the potential to release and unlock development opportunities through uplifting rent values and realigning highway space.

The role of transport-led urban regeneration has a particularly key role to play in the two cities but also has a role to play in the towns of the area by offering the potential to revitalise areas and internalise trips and spending. Transport-led urban regeneration responds to Outcomes 1, 2, 3 and 4.

Improvements to walking and cycling infrastructure and improved information offer the potential to increase the mode share for active modes. A high volume of the vehicular trips made each day in the area are less than 5km in length. In urban areas, in particular, there is a strong opportunity to attract active mode share and reduce vehicle-based highway demand on the radial routes into our cities and towns and routes to our international gateways.

Travel choices, technology and home-working can also play a key role in reducing pressure on our highway network by reducing the need to travel. The role of broadband improvements is of importance here, outlining the need for solutions to be generated across policy and delivery areas.

Phase 1 of BRT has already been successful, attracting new users and increasing the mode share of bus. Improvements associated with the TfSH LSTF and BBAF projects will further enhance the quality of by travel in South Hampshire and improve integration across public transport modes (through improved interchange and smart-ticketing). The wider network proposed for BRT will play a pivotal role in the transport network to support economic growth and the delivery of strategic development in south east Hampshire. The step-change in bus travel provided by BRT is expected to play an important role in increasing the mode share of bus, improving public transport integration and reducing highway congestion.

BRT will help unlock the provision of direct and indirect jobs associated with developments including approximately 11,700 new homes at the strategic sites and an estimated 10,000 or more new jobs in the wider area. The scheme is critical to help provide sustainable connectivity with key destinations, reducing journey times and helping to improve productivity whilst reducing carbon emissions.

Establishing strong and sustainable bus services to serve new development from first occupation can play an important role in establishing travel habits that support the transport offer. BRT and the proposals for buses serving Whiteley are important here. Highway interventions also have a key role to play in unlocking strategic development and so, combined, these schemes support Outcome 5.

Improvements to interchanges as set out in section 9.6 can strengthen their role as transport hubs for integration of modes (including the car). The Hard Interchange in Portsmouth includes provision for bus, rail, taxi, ferry, cycling and pedestrians and emphasises that investment at interchanges can realise a multiplication of benefits through their application across a range of transport users.

The range of highway schemes identified within this plan tackle current and forecast constraints at key junctions and on radial routes to our cities and international gateways (for example the Redbridge Roundabout and Windhover Roundabout proposals).

The role of the M27 as a key local distributor road, as well as its strategic function, result in a focus on improvements at its junctions and to improve how it functions. The motorways play an important role in transport provision in the area; this role is exemplified when their use is impacted by accidents or road-works. The high usage in the peaks and the proximity and number of junctions results in daily congestion. Motorway congestion can be eased through the introduction of controlled motorways as set out in section 9.10, whilst the complimentary role that capacity improvements to the A27 can play is also identified.

As set out in section 6 (Approach to Delivery), the initial focus is on supporting sustainable movements within and to our cities and towns, and so strengthening their ability to attract business and helping them reach their potential. This initial focus is weighted toward the two cities because of their key economic role, their international gateways and the level of development that they plan to deliver.

In the longer term, the focus expands to include longer distance sub-regional movements within the TfSH area by sustainable modes, which seek to improve travel options for journeys between the two cities and in so doing, widen the labour pool, expand employment horizons and improve business agglomeration. The Portsmouth to Southampton 'skip- stop' rail proposal, and the enhancements to interchanges are important here and can help to mitigate forecast increases in demand for the M27.

11.3 NEXT STEPS

TfSH will progress work to identify funding options for the schemes included within the TDP. This work has already started for a number of schemes, but a specific piece of work will commence early in 2013 looking at funding options. The work will need to not only consider traditional sources of transport funding, but look to new public funding sources that are being directed through the Solent LEP, opportunities that may emerge through a City Deal, the devolved local major transport scheme funding (as administered by Local Transport Bodies), European funding, and through provisions in the new Local Government Finance Act (2012). Over and above these, we must also think innovatively and consider the role that private finance can play in providing funds for transport improvements.

A key initial task will be to identify the schemes within this TDP for consideration for funding by the Local Transport Body for the Solent LEP area. LTBs are new bodies through which devolved local major transport scheme funding will be distributed. The funding is ring-fenced for expenditure on capital transport schemes.

TfSH will also take forward work with the freight industry to develop a private sector-led Freight Strategy with associated deliverables.

12. SYNTHESIS

The evidence shows that there is a need for transport intervention to support sustainable economic growth. In the absence of transport intervention, transport will act as a constraint on sustainable economic growth.

In response, this TDP identifies a set of schemes for the period up to 2026 (in sections 8 – 10), framed by an overall approach to delivery that positions TfSH with the flexibility to mobilise quickly to secure funding opportunities from a variety of sources. Schemes not included within this TDP are deemed to not be required before 2026, given current planning assumptions and strategy focus.

This delivery plan sets out a clear programme of transport schemes that have been identified and assessed through a robust evidence-based process, underpinned by a clear approach to delivery focussed on strengthening our urban areas and the international gateways. The proposals set out a multi-modal approach to supporting economic growth.

As the interventions identified respond to transport constraints that have been identified within the context of supporting economic growth, and as the emerging schemes that will be taken forward show the potential to provide value for money, the delivery plan can also be seen as an investment plan, which will provide a return on that investment.

This plan and the work that has fed into it provide TfSH with a strong position from which to make a compelling case for investment in the area, and provide TfSH and its partners with clarity on the delivery priorities moving forward.

We now need to identify funding sources and, where these exist, develop the schemes within this plan further.

The role of partnerships in securing delivery is critical. TfSH has worked closely with bus operators – through the South Hampshire Bus Operators Associated (SHBOA) - in particular over the past two years in developing successful LSTF and BBAF bids and the financial and technical contribution of the operators has been a key aspect of our successes. TfSH has worked closely, too, with the Highways Agency in relation to recent Pinch Point funding successes. Indeed, the TfSH area received more Pinch Point funding than any other area in the South East of England. Through our working groups and the Joint Committee, we continue to have excellent relations with the Solent LEP, PUSH, Network Rail, Highways Agency, DfT, Bus, Rail and Ferry operators. TfSH will continue to work with its partners to identify funding and develop and deliver the schemes within this plan.

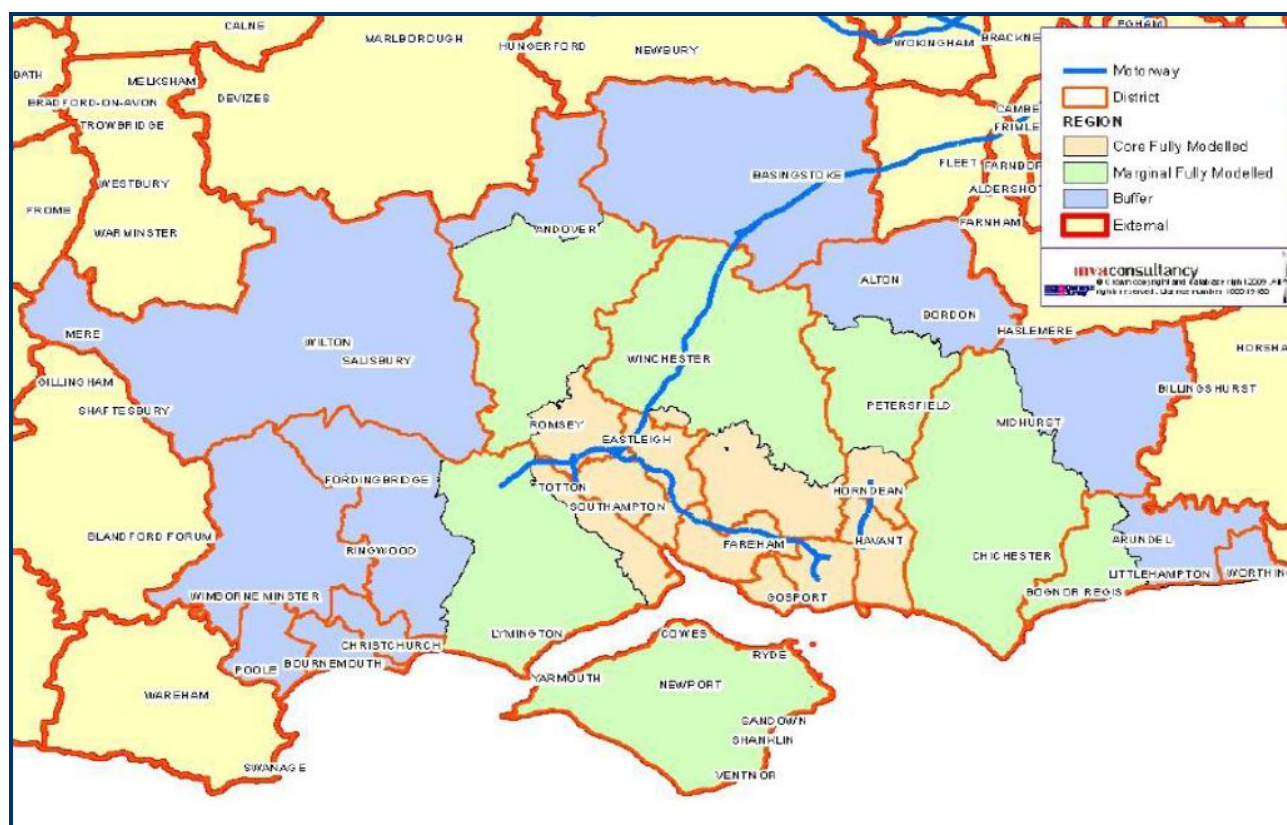
Appendix 1: Summary of the Sub-Regional Transport Model (SRTM)

This section provides a summary of the model used to support the Economic Case, as requested in the LSTF Supplementary Guidance. Full details are included in the Model Validation Report which are available from <http://www3.hants.gov.uk/tfsh/tfsh-what-tfsh-does/tfsh-projects-evidence-base.htm>.

The Transport for South Hampshire Sub-regional Transport Model (SRTM) modelling suite is an evidence-based land-use and transport interaction model developed to provide a strong analytical basis for the development of coherent, objective-led implementation plans to enable the changes in transport provision required to deliver prosperity to the area.

The integrated forecasting approach contains a suite of transport models and an associated Local Economic Impact Model (LEIM). The toolkit has been developed to assist in the ongoing investigation, appraisal and assessment of different: policies; strategies; and infrastructure, management and operational interventions on land-use policies and transport provision.

Figure A1: SRTM Modelled Area Definitions



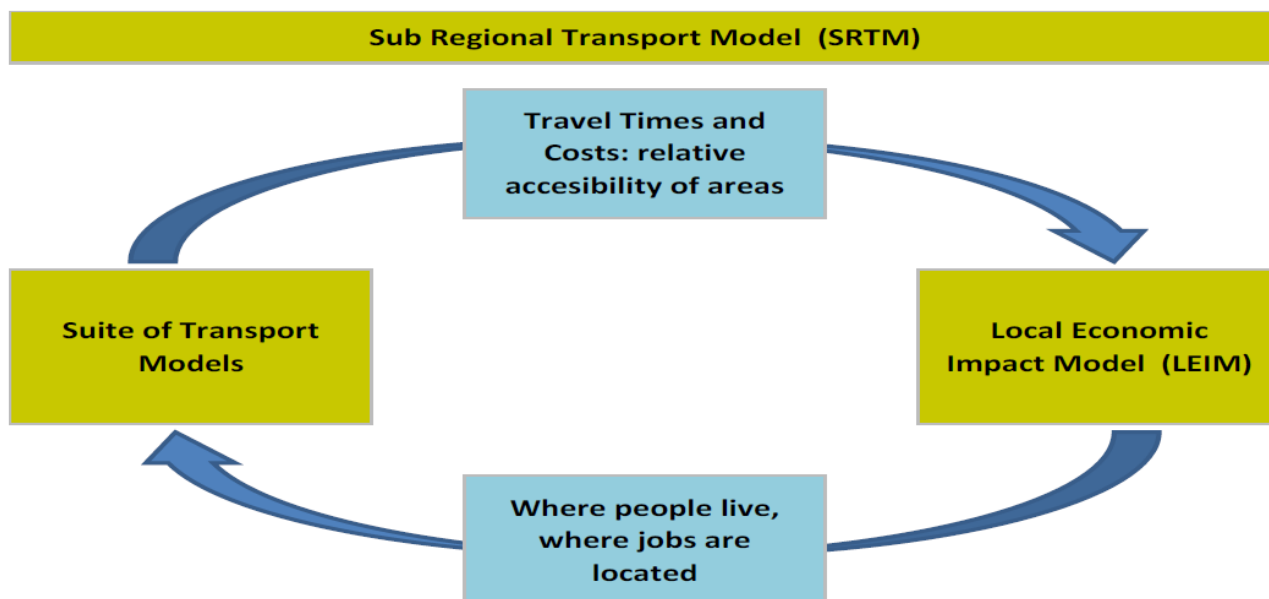
The main TfSH area (shown in orange in figure A1, above) contains the detailed network models, and this area, combined with the surrounding area (shown in green), is covered by LEIM.

The Local Economic Impact Model forecasts:

- The supply of housing
- The number of households by type
- The population by person types
- The number of jobs by sector
- The amount of commercial floorspace

The forecasts are produced for each year of the forecast period (2011 – 2041), and are affected by a range of factors, including, importantly, the performance of the transport network which is input for the years 2014, 2019, 20126 and 2036.

Figure A2: SRTM Transport and Land Use Mode interaction



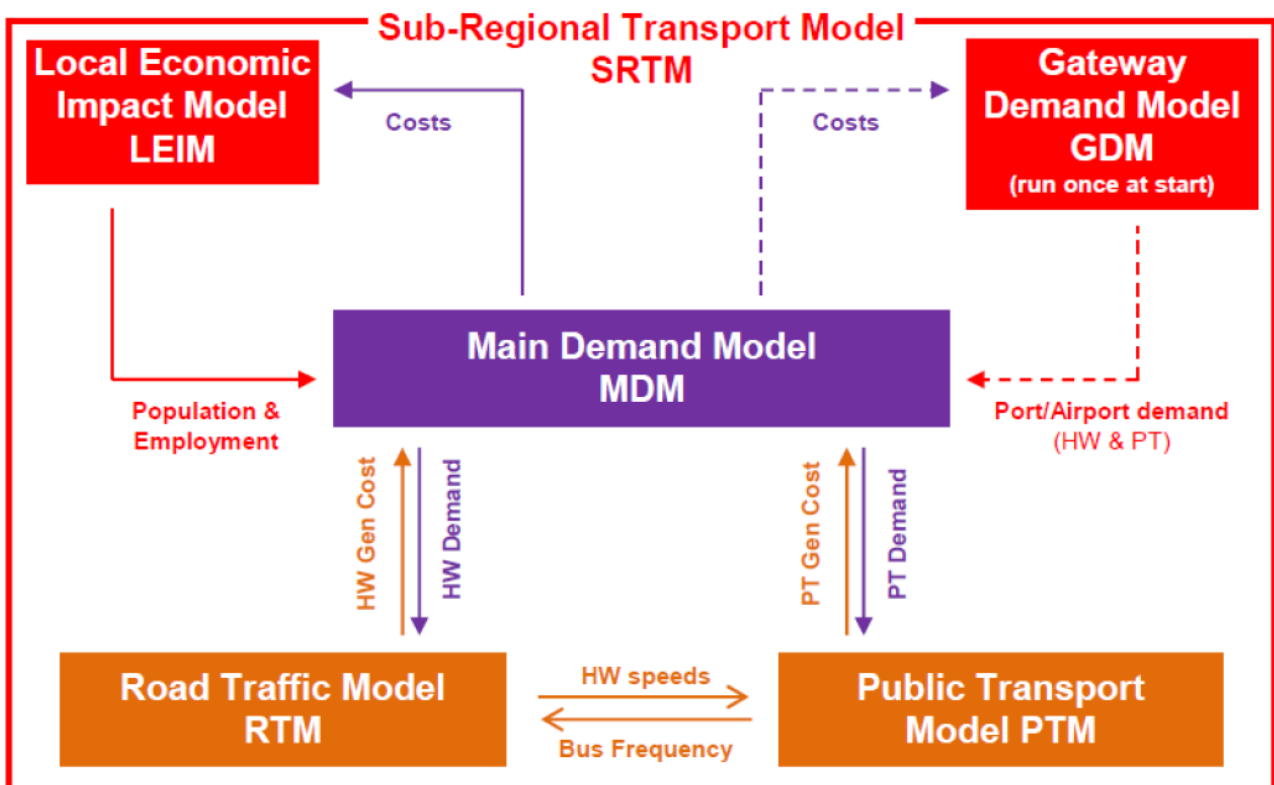
The changes in the supply of housing and employment floorspace are controlled in line with local planning policies and national figures in TEMPRO 6.2. Planning assumptions on permissible development were collected from the relevant local planning authorities and they cover the period up to 2026. For the period beyond 2026 LEIM assumes a greater intensification of use at existing sites only.

The overall growth of South Hampshire can be allowed to vary within constraints set by the TEMPRO data at a sector level, to test the impact of transport and planning policies, or it can be fixed to test the consequences of higher or lower levels of growth.

The outputs of the LEIM are used by the transport models to predict the demand for travel to and from areas within South Hampshire and these can be compared to assess the land-use/economic impacts of different planning and transport policies. The models are set up for a base year of 2010 with forecast scenarios for 2014, 2019, 2026 & 2036. The transport models represent travel conditions for the morning and evening peak periods and the inter-peak period. They estimate the changing patterns of travel separately for travellers undertaking journeys for different purposes (e.g. for commuting or for education-related journeys) and for light and heavy goods vehicles).

The suite of transport models comprises the Main Demand Model (MDM), the Gateway Demand Model (GDM), Road Traffic Model (RTM) and Public Transport Model (PTM). Figure A3 shows the interaction of the various models within the SRTM.

Figure A3: Interaction of models within the SRTM



One notable aspect of the MDM is that it uses tours to define journeys throughout the day rather than the usual trips (one tour would be the journey to work in the morning and back again in the evening; this would be two separate and unlinked trips in other models). A full description of SRTM and LEIM is available from <http://www3.hants.gov.uk/tfsh/tfsh-what-tfsh-does/tfsh-projects-evidence-base.htm>.

How the reference cases are derived and what they tell us (spread and quantum of development)

For each forecast year a set of tests was undertaken:

- Base Case - LEIM forecasts of travel demand using base year transport costs
- Reference Case – LEIM forecasts of travel demand using that year's transport costs incorporating only committed schemes

The Reference Case forecasts of population and employment are lower than the Base Case projections due to the constraints generated by the inefficiencies of the transport network i.e. overall costs of travel (time and money) will be higher. The aim of the interventions in the LSTF bid, and also the LTSIP, is to increase the levels of development, especially employment, back up to the Base Case levels by removing many of the barriers and constraints evident in the reference case. The impacts of these interventions are discussed in the following sections of this Economic Case.

Appendix 2: Key Performance Indicators

KPI	Indicator	Measure	Weighting
KPI 0 Economic Assessment	Present value of benefits		-
	Present value of costs		-
	Net present value		-
	Benefit cost ratio		100%
KPI 1 Enable higher levels of Economic Growth by improving local Employment opportunities, deepening the labour market and therefore increasing productivity	Additional jobs – core area 2026	50	80%
	Additional population – core area 2026	100	5%
	E-W commuter flow 2019 (12hr)	50	5%
	W-E commuter flow 2019 (12hr)	50	5%
	% of commute trips that are inter-district (car and public transport, 12hr, 2019)	0.3%	5%
KPI 2 Enhance business performance particularly at the International Gateways, by increasing the efficiency of the transport network and managing congestion	Total transport efficiency benefits	£25m	20%
	Total private sector impact	£10m	20%
	% population within 60 minutes public transport travel time of Airport	0.1%	5%
	% population within 120 minutes public transport travel time of Airport	0.1%	5%
	% population within 180 minutes public transport travel time of Airport	0.1%	5%
	Highway time to Southampton Dock from M3 J9 – AM peak, 2019	15 Seconds	5%
	Highway time to Southampton Dock from M27 J1 – AM peak, 2019	15 Seconds	5%
	Highway time to Southampton Dock from A3M J1 – AM peak, 2019	15 Seconds	5%
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	Average volume / capacity (AM peak, 2019)	0.05 Seconds	5%
KPI 3 Improve sustainable access Linking People to Jobs and Key Facilities in our cities and towns	Population within 60 minute public transport travel time of Southampton City Centre AM 2019	100	-
	Population within 90 minute public transport travel time of Southampton City Centre AM 2019	100	-
	Population within 120 minute public transport travel time of Southampton City Centre AM 2019	100	-
	Population within 60 minute public transport travel time Portsmouth City Centre AM 2019	100	-
	Population within 90 minute public transport travel time of Portsmouth	100	-

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	Population within 60 minute public transport travel time of Daedalus AM 2019	100	-
	Population within 90 minute public transport travel time of Daedalus AM 2019	100	-
	Population within 120 minute public transport travel time of Daedalus AM 2019	100	-
	Average bus speed 2019 (12 hour period, 2019)	0.025 km/h	-
KPI 4 Reduce unemployment in areas of high deprivation through improved Sustainable Access to Employment Centres	Number of jobs within 60 minutes by public transport from Portsmouth Index of Multiple Deprivation (IMD) zone AM Peak 2019	500	-
	Number of jobs within 60 minutes by public transport from Havant IMD zone AM Peak 2019	500	-
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	Number of jobs within 60 minutes by public transport from Northam IMD zone AM Peak 2019	500	-
	Number of jobs within 60 minutes by public transport from Weston IMD zone AM Peak 2019	500	-
	Number of jobs within 60 minutes by public transport from Thornhill IMD zone AM Peak 2019	500	-
	Number of jobs within 60 minutes by public transport from Old Shirley IMD zone AM Peak 2019	500	-
KPI 5 Reduce Emissions (particularly carbon) from the transport sector by reducing highway vehicle kilometres	Change in vehicle km in core area 12hr 2019	10,000	100%
	Change in Carbon emissions in core area 12hr 2019	5,000	-
	Change in Nitrogen Oxide emissions in core area 12hr 2019	100	-
	Change in Hydro-carbons emissions in core area 12hr 2019	5	-
	Change in Particulate Matter omissions in core area 12hr 2019	5	-
	Change in Carbon Monoxide omissions in core area 12hr 2019	500	-
	Number of highway trips under 5km 2019, 12hr period	2,000	-
	% of total highway trips that are less than 5km 2019, 12hr period	0.05%	-
	Total car trips in core area 12hr 2019	2,000	-
	Total public transport trips in core area 12hr 2019	500	-
	Total active mode trips in core area 12hr 2019	1,000	-

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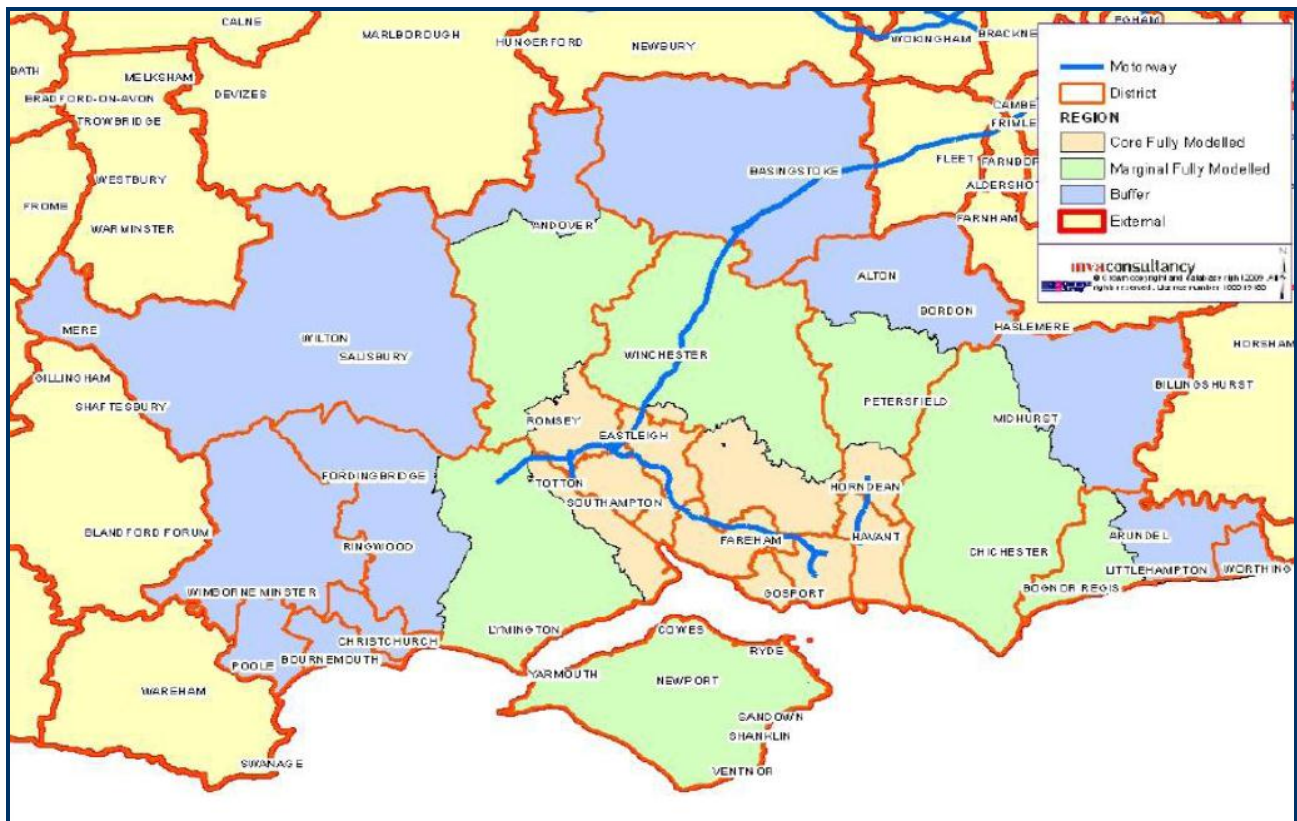
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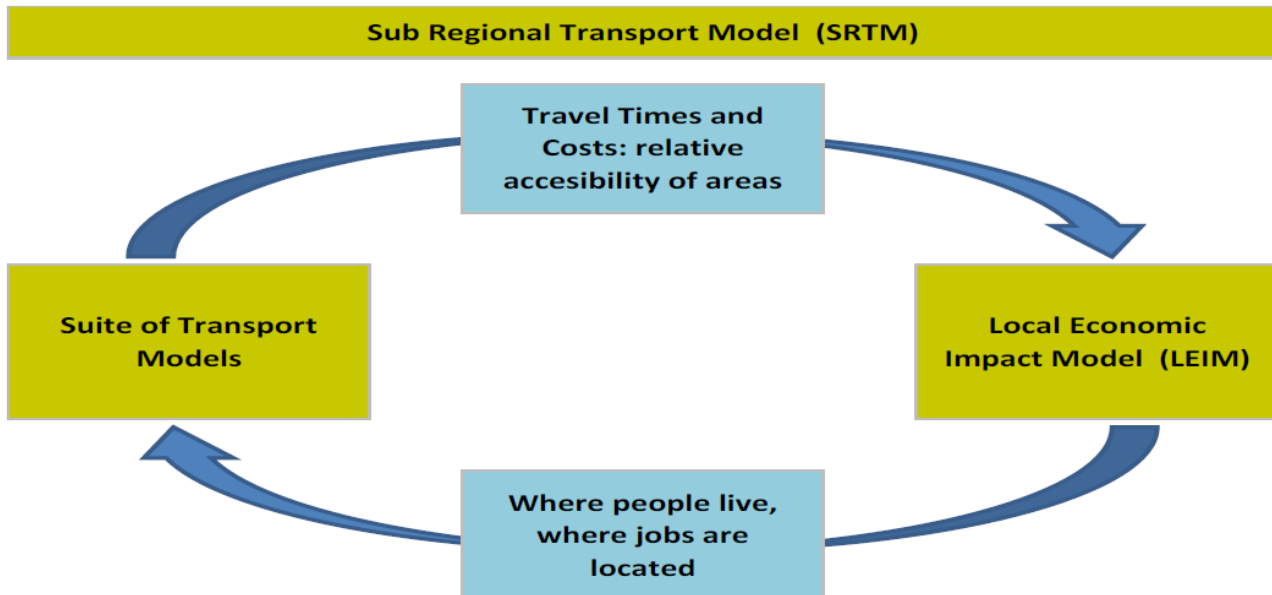
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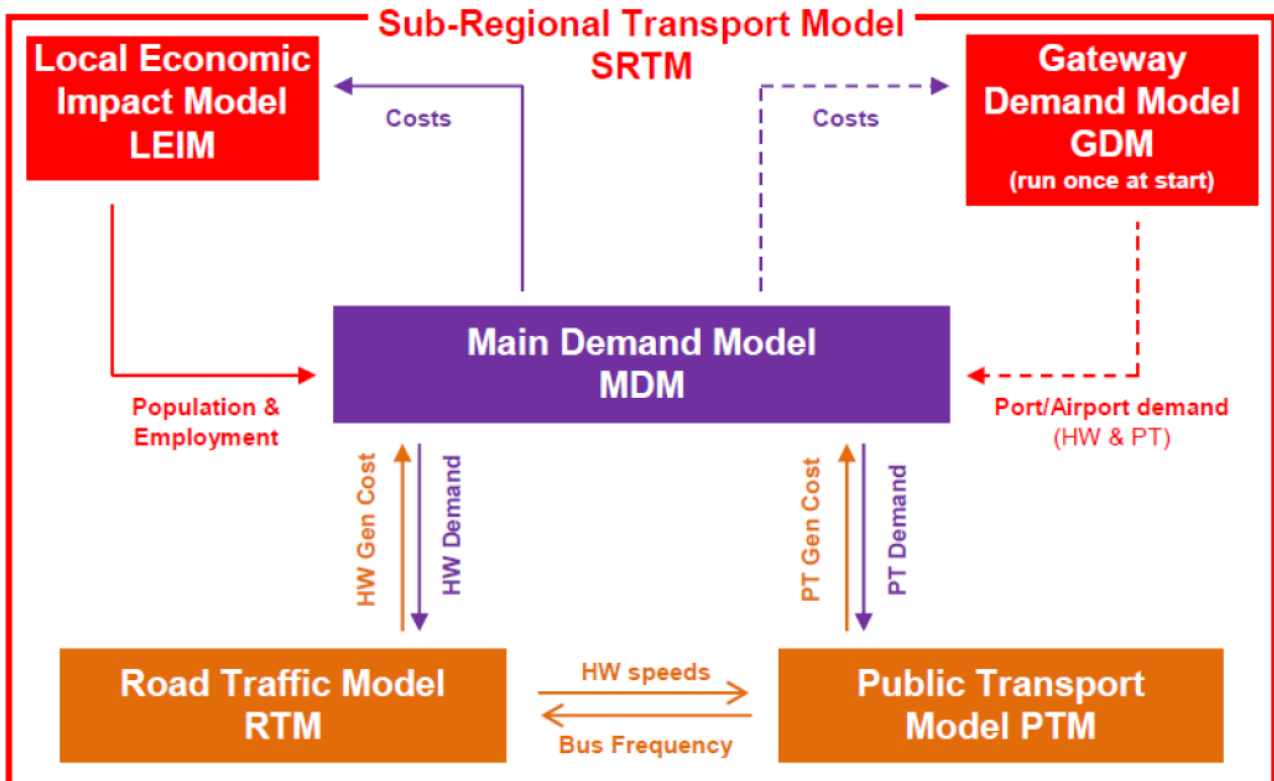
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