



Transport for South Hampshire

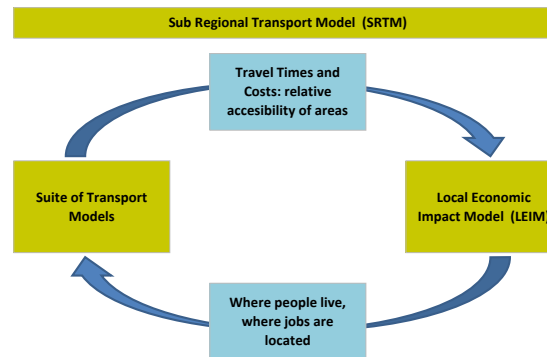
Transport for South Hampshire (TfSH) is an enabling and delivery body comprising the local highway authorities in the South Hampshire sub-region, and bringing together transport operators, business interests and government agencies to facilitate and deliver change through improved transport for the sub-region that will address current short comings and support long term economic vitality and growth objectives.

The TfSH Sub-Regional Transport Model (SRTM) 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 bring the change in provision required to deliver prosperity to the area.

Sub-Regional Transport Model

A mathematical model is needed to test and compare alternative scenarios, proposals and the impacts they would have over many years. Given the scale of the transport challenge in South Hampshire and the need for major

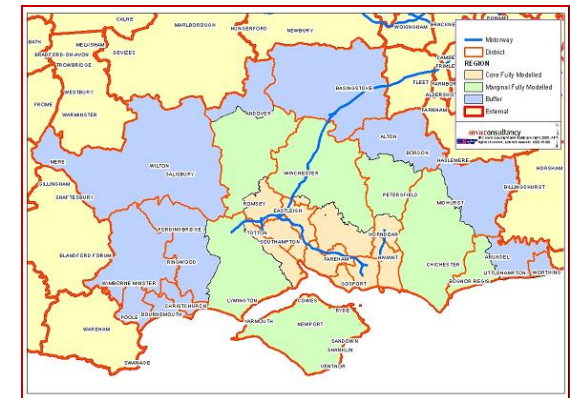
investment, a powerful modelling suite has been developed which can look at traffic flows, public transport, and active travel modes, as well as the relationship between transport and the local economy, and between transport and physical development.



This toolkit has been developed to assist in the investigation and assessment of different policies, strategies and infrastructure, operational interventions and management on land-use and transport provision.

Coverage of the TfSH model

The SRTM focuses on urban South Hampshire. The main urban areas (Southampton, Portsmouth, Havant) and the associated hinterland (shown in orange in the figure) contain detailed network models, whilst the surrounding area (including Lymington, Winchester and Chichester) are covered in detail by the Local Economic Impact Model (LEIM) but represented by simpler networks within the transport models.



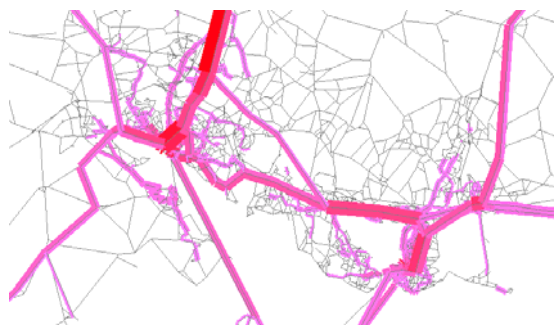
What Do Transport Models Do?

Transport models are a simplified representation of the movement of people and goods, designed to provide a quantitative and analytical framework that helps us to understand how the transport system works under current and future patterns of travel demand.



The transport models represent the travel demand and behaviour of key travel modes in South Hampshire (road

traffic, bus, rail, ferries and active modes). The models also contain processes to examine travel demand at the region's key international gateways – the primary seaports at Southampton and Portsmouth, and Southampton Airport.



The models are used to predict how the system will operate in the future under a wider range of different factors or policy decisions, including expectation of population growth, employment activity and different transport provision. They can be used to predict what would happen if the transport supply changed or if demand for travel changes.

The transport models can be used to answer questions such as:

- how might accessibility to jobs improve by upgrading public transport facilities and services;
- what level of time savings would be produced from road improvements;
- what air quality impacts would result from a particular transport scheme.



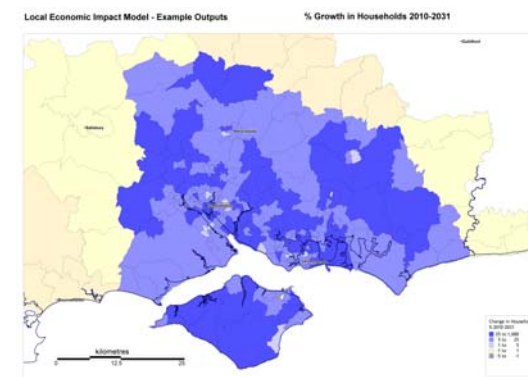
The transport models are set up for a base situation representing 2010 with forecast scenarios for 2014, 2019, 2026 & 2036 (although results for other years can be interpolated). The transport models represent travel conditions for the morning and evening peaks as well as conditions between the peaks in the middle of the day. They estimate the changing patterns of travel separately for travellers undertaking journeys for different reasons (eg for commuting or for education related journeys) that may respond differently.

What does the LEIM do?

The Local Economic Impact Model forecasts for each zone of the modelled area:

- the supply of housing
- the number of households;
- the population;
- the number of jobs, by sector;
- the amount of commercial floor space – shopping, office, industrial

These 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.



The changes in the supply of housing and employment floorspace are controlled in line with local planning policies when and where appropriate.

The overall growth of South Hampshire can be allowed to vary, to test the impact of transport and planning policies, or fixed to test the consequences of higher or lower 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 they can be compared to assess the land-use/economic impacts of different planning and transport policies.

Key objectives of the SRTM

The SRTM is designed to analyse problems and appraisal potential solutions to transport and land-use issues and how these affect each other and economic vitality of South Hampshire.

It can do this at a range of levels by:

- supporting the development of a medium/long-term transport and land use Long Term Strategic Implementation Plan;
- supplying the data and analysis tools for an objective-led approach to Local Development Frameworks and the Local Transport Plan processes;
- generating quantified analyses for funding bids, such as the new Local Sustainable Transport Fund
- providing a consistent underlying assessment tool to examine major development impacts for promoters, developers and local planning and transport authorities; and
- pursuing, via the TfSH authorities, support for design, planning, appraisal and ultimately funding for scheme and intervention delivery.



What can the SRTM be used for?

The SRTM can be used directly, or as the analytical underpinning for a wide range of different purposes in examining options, undertaking detailed assessments or supporting business case development.

Options for use could involve:

- enabling traffic, economic and land use assessments of proposed inter-urban road improvements schemes;
- testing the effects of major road and public transport schemes and other key locational policy options, and also looking at the interactions between them;
- considering the effects of proposed developments on the road and public transport networks;

- examining the transport and wider impacts of a range of behavioral change interventions, such as 'smarter choices', improved ticketing and interchange facilities;
- forecasting and testing future land-use, demographic and travel patterns and the interaction between future land use and transport provision and planning policies;
- appraising road, public transport, Park and Ride and other interventions, and wider appraisals including
 - economic appraisals;
 - Economic Impact Reports;
 - cost-benefit analyses;
 - environmental analysis, including transport based emissions;
 - accessibility analysis
- providing inputs into other models such as micro-simulation models for more detailed local / junction analysis.

The modelling suite is available for use by the following organisations:

- Unitary and District and Borough Councils within Hampshire;
- Highways Agency (HA) and the Department for Transport (DfT);
- Network Rail and Public Transport Operators within South Hampshire;
- Partnership for Urban South Hampshire (PUSH);
- Chambers of Commerce;
- The Solent Local Enterprise Partnership (LEP);
- other interested parties such as developers and health boards; and academia,
- consultancies working on behalf of any of the above.

The model is available to be run as a bureau service by the TfSH Consultant, with all use subject to TfSH approval, although no reasonable request for use will be rejected. The length of time and cost of running the model and analysing the results will depend on the exact nature and complexity of the testing.

Application Note

The SRTM has been developed in compliance with government guidance for such models.

Potential users will be required to provide information / data for use in their application. Full guidance is given in a separate technical note.

Any potential user must be fully aware that model results require careful interpretation by the user, and must take account of the necessary caveats and considerations to be kept in mind when using the model results to support and advise on any scheme or policy application. Full guidance will be given.



What Now?

If you feel that, having read this brochure, the SRTM may be of use to you or your organisation in some capacity, we would welcome the opportunity for further discussion.

For general questions and possible access to the model, please contact HCC; for informal discussion of model capabilities etc, please contact MVA.

If you require further information regarding TfSH please use the contact details below.

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