



Report to Solent Transport

Date: 8 October 2014

Report by: Phil Marshall, Principal Transport Planner

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Subject: Sub Regional Transport Model (SRTM) 2015 Update

1. Summary

1.1 The following decisions are sought that the Joint Committee notes:

the preliminary proposed funding package to update and enhance the SRTM to a 2015 base year and delegates officers to secure external contributions towards the cost of the upgrade.

the maximum local authority contributions, which would be required to support the funding package in 2015/16.

that any updates and enhancements to the SRTM should utilise the methodology recommended by the Evidence Base Steering Group.

2. Reason

2.1 To ensure that the SRTM has up to date base data to ensure that it is fit for purpose as a transport and land use modelling evidence base tool for the Solent and remains fully compliant with the Government's Transport Analysis Guidance (WebTAG).

3. Other Options Considered and Rejected

3.1 Taking no action - This would result in the model relying on increasingly older base transport and land use data. The SRTM would become unreliable as a transport and land use evidence base and would not be compliant with the Government's Transport Analysis Guidance (WebTAG).

- 3.2 Undertaking of a full package of Road Side Interviews – This option has been considered and rejected in the proposed upgrade and enhancement package developed by Evidence Base Steering Group, due to the costs involved.

- 4. **Conflicts of Interest Declared by the Decision Maker or Other Executive Member Consulted – None.**

- 5. **Dispensation granted by the Conduct Advisory Panel – None.**

- 6. **Reason(s) for the Matter being dealt with if Urgent – None.**

Approved by: Date:

**Councillor Seán D T Woodward
Chairman, Solent Transport**



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Subject: Sub Regional Transport Model (SRTM) 2015 Update.

Purpose of the Report

This report provides details on the planned work programme and cost associated with updating the Solent Transport Evidence Base including the Sub Regional Transport Model to a 2015 base year.

Recommendations

The following decisions are sought that the Joint Committee notes:

1. the preliminary proposed funding package to update and enhance the SRTM to a 2015 base year and delegates officers to secure external contributions towards the cost of the upgrade.
2. the maximum local authority contributions, which would be required to support the funding package in 2015/16.
3. that the SRTM be updated and enhanced utilising the methodology recommended by the Evidence Base Steering Group.

Introduction

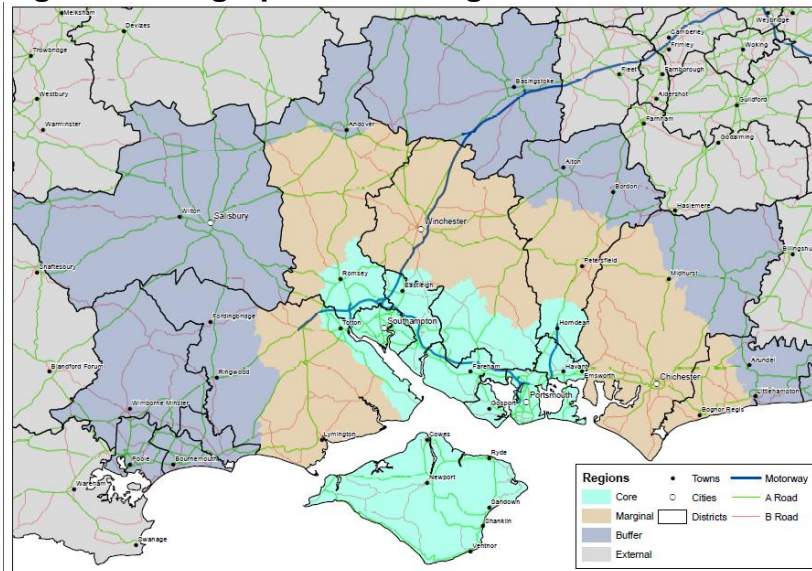
1. The SRTM is a comprehensive transport and land use evidence base modelling tool capable of testing the impact of policies and strategies across the Solent area. The 2013-15 Solent Transport Business Plan includes an action to prepare for a 2015 model update of the SRTM.
2. At the Joint Committee on the 25 June 2014, a presentation was given to Members, which provided background information on the development and use of the SRTM, including its success in securing funding and the case for the 2015 SRTM upgrade. This report provides a more detailed update on the proposed upgrade, including the likely

costs involved and potential sources of funding. Work on the upgrade will not commence until full approval is given at a future Joint Committee meeting.

Background

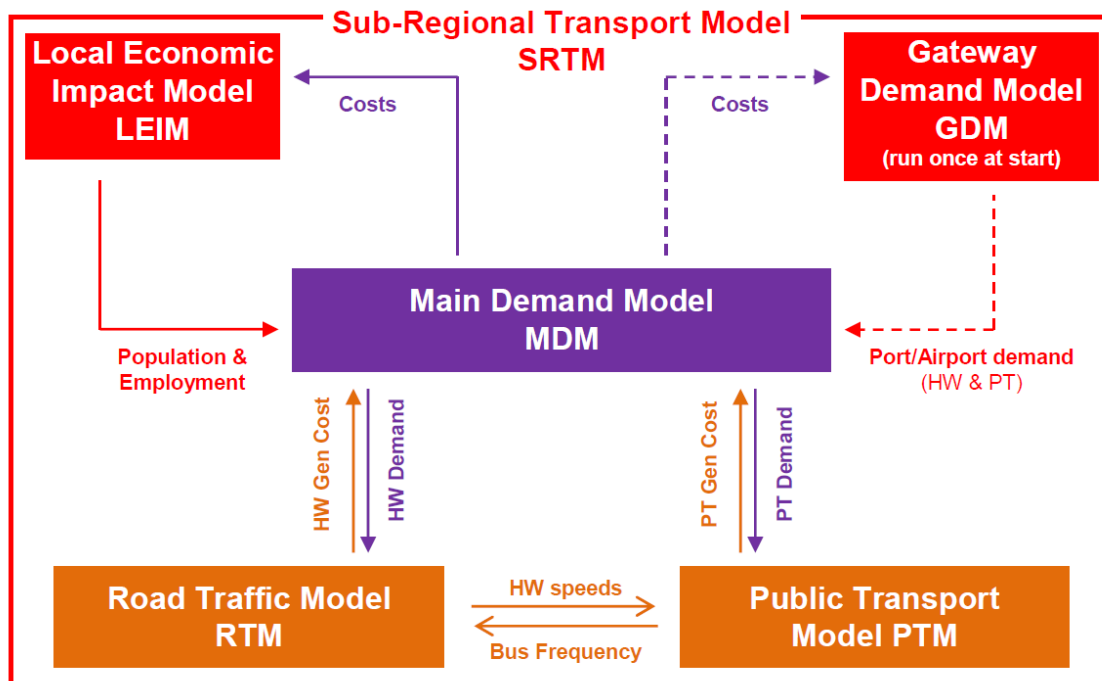
3. The SRTM was developed during 2010 and 2011 by Systra, which was appointed to undertake this work through a competitive tender process. The work was funded by Solent Transport, Partnership for Urban South Hampshire, Department of Transport, South East England Partnership Board and the Highways Agency.
4. When the SRTM was originally developed, the core modelled area only covered the mainland authorities. After the Isle of Wight joined Solent Transport in 2013, the SRTM was updated to include the Isle of Wight within the core modeled area. Figure 1 shows the current geographical coverage of the SRTM.

Figure 1: Geographical coverage of the evidence base



5. Figure 2 (below) illustrates the various separate modelling components of the SRTM.
6. The Main Demand Model (MDM) contains travel demands by all modes and interacts iteratively with the Road Traffic and Public Transport Models to allocate trips to those networks. Walking and cycling trips are also included within the MDM, but are not specifically allocated onto the network. The Gateway Demand Model (GDM) calculates the transport demands from the Ports and Airport and feeds these into the MDM. Finally, the Local Economic Impact Model (LEIM) provides a land use dimension by forecasting how employment levels and population will change over time, based on the levels of accessibility provided by the transport network.

Figure 2. The Evidence Base



7. The SRTM was developed by a working group including Department for Transport, Network Rail and Highway Agency and is currently compliant with the Government’s Transport Analysis Guidance (WebTAG), which provides advice on appraising transport projects and proposals. The base year of the model is currently 2010 (when survey data were collected) and there are four future forecast year do minimum “reference cases” (2014, 2019, 2026 and 2036).
8. The SRTM has been used by both the private and public sector to provide the evidence to support the development of transport schemes, local plans and development sites. It has been successful in securing over £28m of transport funding to the Solent, including the *Better Connected South Hampshire* Local Sustainable Transport Fund and Better Bus Area Fund projects. The SRTM has also been used by the Highways Agency to appraise and secure funding for schemes on the Solent Motorway network.

Requirement to Update

9. Since 2011, a number of updates have been undertaken on the SRTM including:
 - the addition of the Isle of Wight to the core network;
 - updated motorway coding;
 - revisions to the bus network in Fareham, Gosport and Portsmouth;
 - and
 - local revalidation following further survey work.

10. However there are many more updates that are now required to ensure that evidence base remains WebTAG compliant and a valuable transport and land use evidence base asset for the Solent area.
11. The SRTM was originally developed, calibrated and validated against 2010 data and conditions. Much of the survey work to support the model was undertaken in June 2010 although some Roadside Interview data was collected in 2008 and 2009.
12. There has been little traffic growth in recent years, which has meant that the SRTM base year data has been slower to decay from the situation on the ground than would have been the case in previous years. Nevertheless, by 2015 the model will be based on data that is at least five years old, with some of the survey data used in matrix development being six or seven years old. Government WebTAG guidance suggests that models should not be based on data over six years old (TAG Unit M3.1 Paragraph 8.1.1).
13. Since the model was developed, a number of local planning authorities have adopted their local plans, (some of which have utilised the SRTM as an evidence base to assess the transport impact of their Local Plan proposals). It would be a sensible time to update the planning assumptions of the evidence base now that these plans have been adopted. Such an update would also benefit the 2016 PUSH Spatial Strategy work, which will need to use the SRTM consider the transport impact of future land use proposals over the period to 2036.
14. The evidence base currently utilises 2001 Census Journey to Work Origin and Destination data, which was the most up to date information available when the evidence base was being developed. The equivalent data from the 2011 Census was released in July 2014. This new information should be incorporated into the model to update the demand matrices and the LEIM model.
15. Systra is also currently developing a model for North Hampshire. The basic model structure is consistent with the SRTM, however there are some enhancements which could be undertaken to standardise the model and reduce the time and cost of integrating the model outputs.
16. Part of the success of the SRTM is because it is a comprehensive transport and land use evidence base, which can be applied to assess and appraise any development or transport intervention proposal throughout the Solent area. It provides a common and consistent appraisal framework, without an agenda and has been developed in consultation with key stakeholders. Failure to maintain the SRTM with up to date data could leave the model vulnerable to challenge, should it suit a particular party.

17. If the model is not be updated, the private sector will be less likely to utilise it for assessment work on new developments. This work is currently undertaken at twice the public sector rate and thus the additional income Solent Transport receives towards maintaining the model would be reduced. This has raised around £10,000 per annum since 2012/13 and has provided a useful way of generating revenue to help keep the model up to date. Updating the model will ensure the model remains an attractive tool for the private sector to use and maximise the opportunity for this revenue generation.

Options for Updating

Do nothing

18. This has been considered and rejected as the evidence base is a valuable asset for the Solent Area and should be maintained and enhanced. Specifically, the SRTM has:
- been an essential tool to appraise and secure funding for a range of transport schemes and interventions in the Solent; and
 - has been an essential tool for testing an appraising the transport impact of land use proposals, including Local Plans and individual development sites (e.g. Welborne).

Do something

19. Appendix 1 provides a table of the principal elements of the update and the areas of work that are recommended for inclusion in the upgrade by the Evidence Base Steering Group. The table also includes rejected upgrade options.

Finances

20. The current total estimated cost of the recommended work is £452,000. £155,000 of this relates to data collection and the remaining £297,000 would cover the consultant's work to upgrade and enhance the model. There may be the potential to reduce the cost of the data collection work, if this is undertaken by the local authorities.
21. The 2014/15 budget included an allocation of £69,000 towards maintaining the SRTM. There is also the potential to reallocate a further £125,000 of funding from other existing Solent Transport budgets towards the 2015 SRTM Upgrade as follows:
- Staff / Finance / Audit – the budget of £170,000 is currently estimated to under spend by £65,000, primarily because of the Solent Transport Manager's job has been vacant for most of 2014/15;
 - Working with External Agencies – No specific work has been identified at this stage for the £20,000 allocated;
 - Support Delivery of Strategic Development Sites – No specific work has been identified at this stage for the £17,000 allocated;

- Solent Transport Fund Prioritisation – This work is no longer required, as the Solent Transport Fund did not secure any Growth Deal funding, which means the allocated £19,000 is available; and
 - There is £4,000 of funding currently unallocated
22. This would leave a total of £210,000 within the existing Solent Transport budgets to cover Staff/Finance/Audit, Marketing work and the “East West Study”, which aims to look at improved Portsmouth to Southampton connectivity.
23. If existing Solent Transport budgets are reallocated towards the 2015 SRTM Upgrade as shown above, this would still leave a shortfall of £258,000. The report recommendations give delegated authority to officers to secure external funding towards the 2015 SRTM Upgrade, which would reduce the funding shortfall. However, if no external funding can be secured, the worst case scenario is that this £258,000 would need to be funded entirely by the four Solent Transport local authorities.
24. These contributions would be in addition to the normal Solent Transport partner contributions. However, any external contributions will reduce these on a pro-rata basis. It should also be noted that these contributions would not be required until 2015/16, as sufficient funding is already available to progress any work required in 2014/15. Work is also being undertaken to determine whether capital funding could be used for a portion of this funding.

Timescales

25. If a funding package is secured and agreement given to progress with the 2015 SRTM upgrade, it is anticipated that roadside interview survey work will be undertaken in Spring 2015 with traffic counts being undertaken in March 2015. The modelling work will be completed by Autumn 2015. Throughout the development of the 2015 update the existing model will still be able to be utilised.

Longer Term Plans for the SRTM

26. It is recommended that a full model update to include a full package of road side interviews would need to be undertaken in 2021.

Summary and Conclusions

27. The 2015 SRTM Upgrade is essential to ensure that the SRTM continues to be an up to date and compliant transport and land use evidence base for the Solent. The report has outlined the cost of this work and potential sources of funding.

28. At the next Joint Committee, it is proposed to bring forward a detailed and costed 2015 SRTM Upgrade proposal and associated funding package for approval.

Section 100 D - Local Government Act 1972 - background papers

The following documents disclose facts or matters on which this report, or an important part of it, is based and has been relied upon to a material extent in the preparation of this report.

NB the list excludes:

1. Published works.
2. Documents which disclose exempt or confidential information as defined in the Act.

TITLE

LOCATION

To be completed

Appendix 1

Options considered to update and enhance the SRTM

Area of Work	Recommended Option to Update	Rejected Options
<p>Zone Harmonisation – To improve performance of the model and reduce model run iterations.</p>	<p>Adoption of MDM/PTM/RTM zones in LEIM and the addition of zones for future development loading.</p>	<p>Common zoning down to the lowest common detonator due to increased complexity.</p>
<p>Weekend Forecast – To provide a scenario to enable schemes to be assessed at the weekend, which would be helpful in city centre and retail locations</p>	<p>Suggested factorisation of the weekday interpeak demand and local validation to create a weekend scenario.</p>	<p>A full weekend model development due to increased run times for the model.</p>
<p>LEIM data and processes - The inclusion of latest planning, census and TEMPRO data and the use of the latest versions of LEIM software</p>	<p>Inclusion of the latest planning, census and TEMPRO data and the use of the latest software.</p>	<p>None</p>
<p>Main Demand Model Data and Processes – Updating the model to take into account how travel habits have changed.</p>	<p>Inclusion of park and ride (Tipner) and updated behavioural change assumptions in the base year</p>	<p>The testing of trip rate assumptions using standalone development sites.</p>
<p>Road Traffic Model and Network Development - Updating the network, reference case scenarios and using best practise from the North Hampshire Model.</p>	<p>A review of traffic signal timings, standardisation of saturation flows and enhancement of roundabout coding will be undertaken.</p>	<p>A review of network coding has been rejected as any key changes will be recommended by Officers</p>
<p>Road Traffic Model Matrices – To update flows and travel habits including utilising census data.</p>	<p>Undertaking a series of traffic surveys supplemented with road side interviews in high growth areas to update the prior matrix.</p>	<p>Utilising the existing demand matrices has been rejected as it does not conform to best practice. Undertaking a comprehensive package of road side interviews has been rejected due to cost.</p>

Agenda Item: 7

Public Transport Model and Network Development – Updating the model to take account of changes in routes, frequency and demand	Collection and update of information on routes, frequency and demands.	Public transport user interviews
Gateway Demand Model – The future plans of the regions three international gateways feed into the future years scenarios.	Update counts and liaison over future growth assumptions	None