

TAYSIDE AND CENTRAL SCOTLAND TRANSPORT PARTNERSHIP

15 JUNE 2010

REGIONAL TRANSPORT MODEL

REPORT BY PROJECTS MANAGER

This report informs the Partnership of the findings of a Regional Model Review and seeks approval of the outcomes. It also asks for authority for officers to seek expressions of interest in developing a Regional Model from suitably qualified companies.

1 RECOMMENDATIONS

1.1 That the Partnership:-

- (i) notes Tactran's requirement for a Regional Transport Model to assist with developing Delivery Plan projects and assist with the renewing of the statutory RTS, possibly in 2012;
- (ii) approves the Preferred Option for regional transport modelling identified in the Regional Model Review and outlined within this report;
- (iii) authorises officers to seek expressions of interest in developing a Regional Transport Model from suitably qualified companies; and
- (iv) agrees to receive a further report on proposals for the development of a Regional Transport Model at the next Partnership meeting.

2 BACKGROUND

- 2.1 Tactran has a statutory duty to produce a Regional Transport Strategy and take measures to ensure its implementation. In developing its first RTS, approved by Scottish Ministers in 2008, limited modelling was undertaken using the Transport Model for Scotland (TMfS). However, it was recognised at that time that a regional model will be required to fully assess the RTS when it is reviewed in 2012 and hence the requirement to develop a Regional Transport Model was included in Tactran's Delivery Plan, as approved by the Partnership at its meeting of 23 June 2009 (Report RTS/09/28 refers).
- 2.2 To fulfil the statutory duty of ensuring the implementation of the RTS, there is also a requirement to develop the interventions contained within the Delivery Plan. A number of these interventions, such as improving the A90 through/around Dundee require a Regional Transport Model to develop them further.
- 2.3 Currently the TMfS is used to model the transport implications and impacts of major land use and transport policies, proposals and projects at a national level. There are also local traffic modelling tools that are currently in use by partner Councils. However, currently there is no regional land use, transport or traffic modelling capability.

- 2.4 In addition to fulfilling the statutory requirements to appraise the RTS and further develop RTS Delivery Plan proposals, the development of a regional model could also be used to develop STPR projects and appraise the emerging Strategic Development Plan and Local Development Plan policies, strategies and proposals and also support national and local models. This may provide cost sharing opportunities for the relevant stakeholders.
- 2.5 As a pre-cursor to possible development of a Regional Transport Model a review has been undertaken into the current modelling capabilities within the Tactran area; the requirements by Tactran and other key stakeholders for a regional model and the merits of developing such a model for all stakeholders. This report provides an overview of the Regional Model Review and its outcomes and recommendations.
- 2.6 A copy of the Regional Model Review is available for inspection in the Members' area of the Tactran website (www.tactran.gov.uk).

3 DISCUSSION

- 3.1 The purpose of the Regional Model Review was to identify the requirements and function of a Regional Transport Model and the most cost effective and efficient method of delivering such a model.
 - 3.2 The study was undertaken in a number of stages as outlined below:
 - Review current transport and traffic modelling capabilities within the Tactran area;
 - Identify the modelling requirements of Tactran and other key stakeholders, such as Transport Scotland, TAYplan and partner Council's and consider how current models meet the requirements of the stakeholders.
 - Draw together options for future regional modelling
 - Recommend preferred option.
- (i) Current Transport and Traffic Modelling Capabilities
- 3.2.1 A review of the current modelling capabilities identified that at a Scottish level the main modelling capability is that delivered through the Land-use And Transport Integration in Scotland facility (LATIS). This has two major models; one covering planning policy inputs – "Transport and Economic Land-use Model of Scotland" (TELMoS) – and another for appraisal of Transport Interventions – "Transport Model for Scotland" (TMfS). These models work either in conjunction with each other or independently, but are not of sufficient detail to accurately model regional transport interventions or land-use allocations.
 - 3.2.2 At a Regional level Tactran has its Accession model which can be used to measure accessibility of locations and facilities by various forms of transport, but does not have a Regional Transport Model to assist in fulfilling its statutory duties

- 3.2.3 It should be noted, however, that a number of other RTPs (SEStran, Nestrans, SPT) do have functioning Regional Transport Models. These models are used to fulfil their statutory requirements to ensure the implementation of the RTS by developing regional transport interventions and will also be used in renewing their RTSs in 2012. The models are also being used to develop STPR projects within their areas.
- 3.2.4 In addition the existing Regional Transport Models in other RTP areas are also available to assist in developing the spatial strategies of their relevant Strategic Development Planning Authorities and assisting with assessing their SDP land-use allocations.
- 3.2.5 Locally three of Tactran's partner Councils have Paramics microsimulation traffic models covering parts of their major urban areas, Dundee, Perth and Stirling. These models in general are used to test local infrastructure/traffic management schemes and Development Control issues. They are traffic models and are not multimodal, nor are they designed to be able to model larger scale regional interventions.

(ii) Modelling Requirements

- 3.2.6 The modelling requirements were identified through a stakeholder workshop held in October 2009; e-mail correspondence with key stakeholders and a thorough review of National, Regional and Local transport and land-use policies and documents.

- Tactran's Requirements

- 3.2.7 The Transport (Scotland) Act 2005 places a statutory duty on Tactran to draw up a Regional Transport Strategy and to fulfil the implementation of the strategy. The Regional Transport Strategy (RTS) was approved in 2008 and, given the 4 year cycle for reviewing, the RTS is scheduled for renewal in 2012. In addition the current RTS Delivery Plan contains over 70 interventions, a number of which, such as the A90 through/around Dundee require further appraisal and development.
- 3.2.8 On the basis of ongoing discussions with Transport Scotland it is anticipated that a Regional Transport Model will be required to appraise and develop a number of Delivery Plan interventions; assist in developing the RTS review for 2012 and undertake detailed appraisal of key regional interventions included in the STPR. An update on the ongoing discussions with Transport Scotland will be reported orally.

- Other Regional Requirements

- 3.2.9 TAYplan, the Strategic Development Plan Authority for the region of Dundee, Angus, Perth & Kinross and North-East Fife, is currently in the process of developing its first Strategic Development Plan (SDP). The TAYplan SDP is required to consider strategic spatial strategies and land allocations. Work is currently ongoing on the SDP aiming for submission to Scottish Ministers in early 2012. It may be that, similar to the first RTS, the timescale does not permit a Regional Transport Model to be developed for the first TAYplan SDP. However, a Regional Transport Model would provide the ability to fully assess the spatial strategy and land allocations for the following SDP.

- National Requirements

3.2.10 There are two main areas nationally that regional modelling can assist – Planning Reform and delivery of the Strategic Transport Projects Review. In particular, there is a recognition that the national model – TMfS – is too coarse for the regional assessments that are required for STPR projects such as, Strategic Park & Ride/Park & Choose; A9 Upgrade from Dunblane to Inverness; Rail Improvements Aberdeen to Central Belt and A90 through or around Dundee and that a regional model is required.

- Local Requirements

3.2.11 As outlined above, there are traffic models for Perth, Dundee and Stirling. Angus Council does not currently have a traffic model nor does it foresee a requirement in future.

3.2.12 In general there is good coverage of traffic modelling for urban centres at the local level and these models have been used effectively to develop local traffic schemes; assess traffic implications of local large scale developments and road network management in general. These models are particularly strong in the appraisal of infrastructure interventions focussed on car based travel in the short term. However, microsimulation models do not address long term and demand responses to land-use and mode choice interventions and as such models for this are not available locally.

3.2.13 Although the Planning Authorities of each partner Council do not currently use transport modelling in developing local planning strategy documents, this may become a requirement with the publication in the near future by Transport Scotland of their “Development Planning Management – Transport Appraisal Guide”. This guidance will be aimed at providing advice to Planning Authorities on transport appraisal required for development of Strategic and Local Development Plans, including modelling the transport implications of land-use proposals.

(iii) Options for Regional Modelling

3.2.14 A number of different options and associated costs were developed including - stop all modelling; maintain the current capabilities; complete package; essential single model; essential multiple models and essential incremental development. These options were presented at a stakeholder meeting in March 2010.

3.2.15 The model options to a greater or lesser degree meet the requirements outlined above at varying costs. The 10 year average annual cost of the model options ranged from £0 (stop all modelling) to £440,000 per annum (complete package). It should be noted that maintaining the existing models – local Paramics microsimulation models – is estimated to cost in the region of £80,000 per annum over the 10 year period.

3.2.16 During discussions both Stirling Council and Perth & Kinross Council officers whilst recognising the benefits of developing a Regional Model questioned the justification for additional expenditure in the current economic climate. In addition Stirling Council were concerned that the development of a Tactran Regional Transport Model may not properly recognise the Stirling Council area’s transport links to the south of their area and the central belt in particular.

3.2.17 Following a presentation of options and a full discussion between key stakeholders at the meeting in March 2010 a preferred option was agreed, which took into account all stakeholders' comments and requirements.

(iv) Preferred Option

3.2.18 The preferred option agreed at the stakeholders meeting in March 2010 was to consider two models for the Tactran area - one model covering the wider Dundee/Perth area and another transport model covering the Stirling area.

3.2.19 There are a number of benefits attributed to the preferred option:

- The two models will assist with the review of the RTS and provide for detailed appraisal of the Tactran Delivery Plan projects, thus meeting Tactran's statutory duty as outlined above.
- The two models cover the majority of the strategic land-use within the Tactran area and the route choice within each area for both national and regional strategic transport.
- The connectivity between Perth and Dundee is contained within one model. This will make appraisal of land use and transport interventions between these regional urban hubs more straightforward.
- The development of a Stirling area model could assist with the concern regarding proper consideration of transport links to the south of Stirling.
- The two models can be developed independently as priority requires (although the development of each should take cognisance of the need for consistency between them).
- In addition to being able to appraise the requirements of Tactran, the two models could provide for more detailed appraisal of the STPR interventions such as the A90 through or around Dundee; Strategic Park and Ride; A9 Upgrade from Dunblane to Inverness and Rail Improvements Aberdeen to Central Belt and potential cost sharing with Transport Scotland.
- The wider Dundee/Perth area model would also coincide with a significant proportion of the TAYplan area and as such could assist with determining land-use allocations at a regional level.
- Local modelling capabilities would be enhanced and the collection of data for the two regional models could also help reduce the future cost of data collection for the local microsimulation traffic models, thus providing benefit at a local level as well as filling the regional gap.

3.2.20 The cost of developing the preferred model option is expected to be in the range £150,000 with £30,000 auditing costs and in addition the cost of data collection is estimated at £100,000. However, it is expected that the data collection cost could be significantly reduced by using data already collected for existing local microsimulation models and TMfS.

- 3.2.21 It should be noted that the cost to the local authorities of maintaining the current microsimulation capabilities is estimated at an average of £80,000 per annum over a 10 year period. Following initial investment in the regional model, the cost of maintaining the model is estimated at an average of £100,000 per annum including maintaining the microsimulation models i.e. additional £20,000 per annum. None of the cost of the development of the Regional Model would fall to any of the Local Authorities, but as outlined above they may benefit from sharing of data collected for the Regional Model, when refreshing their own microsimulation traffic models.

Next Steps

- 3.3 As outlined above the preferred Regional Transport Model option will fulfil the requirements of a number of stakeholders and the opportunity should be taken to investigate opportunities for key stakeholders, such as Transport Scotland, TAYplan and partner Councils, to develop models and potentially achieve cost savings by sharing model building, data collection, procurement, maintenance and modelling licences.
- 3.4 A model specification setting out the scope of the model required is being developed. Once completed and agreed with partner Councils and other key stakeholders it is intended to seek expressions of interest from suitably qualified companies.
- 3.5 It should be noted that seeking expression of interest does not commit Tactran to progress to tender stage. A report seeking authority to progress beyond expression of interest stage will be presented to the next Partnership meeting.

4 CONSULTATIONS

- 4.1 This report has been prepared in consultation with the Chief Officers Liaison Group. The relevant Council Transportation and Planning officers and key stakeholders have been consulted throughout the Regional Model Review.

5 RESOURCE IMPLICATIONS

- 5.1 The costs of undertaking the Regional Transport Review as discussed in this report were met from the 2009/10 RTS Implementation Budget and a further proposed allocation is included within the 2010/11 RTS Implementation Budget to enable the preferred modelling option arising from the review to be progressed.

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NOTE

Background papers, as defined by Section 50D of the Local Government (Scotland) Act 1973 (and not containing confidential or exempt information) which were relied on to a material extent in preparing the above Report :-

Report to Partnership RTP/09/28, Regional Transport Strategy Delivery Plan, 23 June 2009.

Report to Partnership RTP/09/30, 2009/10 and 2010/11 Revenue Programme, 23 June 2009.

Report to Partnership RTP/09/36, Revenue Budget Monitoring 2009/10, 22 September 2009.

Report to Partnership RTP/09/45, Revenue Programme Monitoring 2009/10, 15 December 2009.

Report to Partnership RTP/10/05, 2009/10 Revenue Monitoring, 16 March 2010.