

WEST NORTHAMPTONSHIRE COUNCIL CABINET

11 July 2023

**Cabinet Member for Environment, Transport, Highways and Waste:
Councillor Phil Larratt**

Report Title **Procurement of a new Strategic Transport Model**

Report Author **James Povey, Transport Strategy and Development Manager,
james.povey@westnorthants.gov.uk**

List of Approvers

Monitoring Officer	Catherine Whitehead	21/06/2023
Chief Finance Officer (S.151)	Martin Henry	21/06/2023
Head of Communications	Becky Hutson	21/06/2023

List of Appendices

None

1. Purpose of Report

- 1.1. To update Cabinet on the status of the Northamptonshire Strategic Transport Model, seek approval to undertake a procurement for the rebuild of the model in partnership with North Northamptonshire Council and to agree its funding. The rebuilt model will increase opportunities for successfully bidding and securing Government and developer funding and ensure the authority can plan and implement appropriate highway and transport schemes in the coming years.

2. Executive Summary

- 2.1 The Northamptonshire Strategic Transport Model (NSTM) is Northamptonshire's traffic model, which can be used for testing development proposals, providing an evidence base for spatial strategies, transport policies and major highway schemes. To ensure that they are representative, such models only have a limited life before new survey information and planning data is needed, and the model rebuilt.
- 2.2 Developed in 2008 by the former Northamptonshire County Council, the NSTM was last rebuilt in 2015. The NSTM has proven a robust basis to assess development impacts upon the road network and secure funding for proposed road infrastructure schemes.
- 2.3 The NSTM has not been significantly updated since 2015 and the age of the model, its assumptions and underlying data means the validity of model outputs could come under scrutiny for future assessment where:
- Government funding is required for a major scheme.
 - The model is supporting potentially contentious planning policy that requires public scrutiny and formal examination.
 - There are traffic impacts arising from planned development anticipated on the local and Strategic Road Network (National Highways).
- 2.4 The Northamptonshire model is now due a rebuild, having reached the end of its current validity, both practically and according to government guidance. An update will ensure that the NSTM is still relevant, robust and continues to be fit for appraising policies, transport improvements and development schemes.
- 2.5 Following consideration of a range of options, it is recommended that the NSTM be rebuilt in partnership with North Northamptonshire Council and upon completion each authority will operate and own its own copy of the model. This allows each authority to control access to the model, run individual scenarios and maintain appropriately.
- 2.6 In March 2020, Northamptonshire County Council approved the allocation of £400,000 of Section 278 reserves towards the update of the model. This funding will be supplemented by £78k of funding each from both North and West Northamptonshire from fees charged to developers using the model. Funding will be provided on an equal share basis.
- 2.7 The first stage of the commission to be funded will be for the model build and future reference case scenario. This will cost in the region of £500,000. The contract will also cover the future model hosting, maintenance and operation. The costs for this could take the value of the overall contract up to £2m, and this will be funded separately through a combination of third party charges, model access fee income and separate project budgets across the Place Directorate.

3. Recommendations

- 3.1 It is recommended that the Cabinet:
- a) Agree to working in partnership with North Northamptonshire Council to update and rebuild the Northamptonshire Strategic Transport Model
 - b) Agree to West Northamptonshire Council being the lead procuring authority.
 - c) Agree £78k of existing model fee income towards the development of the Northamptonshire Strategic Transport Model, alongside the £400k already set aside by both councils, and an equal contribution of £78,000 from North Northamptonshire Council.
 - d) Agree to delegate authority to Director of Place, in consultation with the Portfolio Holder for Environment, Transport, Highways and Waste, the S151 Officer, the Monitoring Officer and the Portfolio Holder for Finance, to take any further decisions and/or actions required in connection with the procurement and award of the Northamptonshire Strategic Transport Model contract, without the need to return to the Cabinet.
 - e) Note West Northamptonshire Council will retain ownership and ongoing management of its own independent version of the Northamptonshire Strategic Transport Model.

4. Reason for Recommendations

- The recommended course of action is the most cost-effective. Unlike the other options considered, the joint revalidation of the NSTM produces financial, time and resource efficiencies whilst allowing each authority to retain future exclusive use of the model.

5. Report Background

- 5.1 The Northamptonshire Strategic Transport Model (NSTM) is key to developing the evidence base for spatial strategies, transport policies and improvements, and support for business cases. The NSTM is a strategic multi-modal model (effectively a computer simulation of the transport network) covering Northamptonshire capable of assessing the impacts of future changes in travel demand and transport provision within Northamptonshire.
- 5.2 The NSTM is an industry-standard computerised model that was built in 2008 and rebuilt in 2015. The rebuild took account of significant changes to the highway network around Northampton and was supported by updated count data. The existing NSTM has been used to assess a wide range of policies and schemes for example; the Development Plan, the A43 improvements as well as assessing a significant number of development sites and their impacts upon the road network.
- 5.3 The base year data is now more than seven years old with previous Department for Transport, Transport Appraisal Guidance (TAG)/Design Manual for Roads and Bridges (DMRB) guidance recommending a six-year data source age limit. TAG Unit M2.2 (May 2020) frequently references age of data as a potential limitation, dependent on the levels of change in travel demands over the intervening period.
- 5.4 The age of the model and underlying data means the validity of model outputs could come under scrutiny for future assessment where:

- Government funding is required for a major scheme.
- The model is supporting potentially contentious planning policy that requires public scrutiny and formal examination.
- There are traffic impacts arising from planned development anticipated on the local and Strategic Road Network (National Highways).

5.5 The model rebuild updates underlying travel demand data, and the transport network available (recognising any changes since 2015). The new model will have a new 2023 base year informed by new travel pattern and demand data, which will be validated using traffic count data. The pandemic created significant changes to travel patterns with the authority unable to develop a reliable base year. A future forecast year of the model will then be developed informed by known transport improvements, new developments and travel demand changes. A number of reports will be produced as part of the commission providing a valuable evidence base.

5.6 The NSTM will be used to support the development and implementation of the Local Plan and the Local Transport Plan. Both policies will be developed and assessed through 2023 and into 2024. The model will also support major scheme business cases for transport infrastructure funding to Government and will also be important for the effective assessment of large new development applications and substantiating the transport improvements required to mitigate their impact.

5.7 In March 2020, Northamptonshire County Council considered and approved the rebuild and funding of the NSTM from Section 278 reserves (£400,000) and from fees charged to developers using the model. Given the challenges of the pandemic and the instability of travel provision and demand this work was not progressed.

5.8 It is considered appropriate to follow this funding model; utilising the £400,000 secured and fee income from both North and West Northamptonshire. Given both authorities hold a similar need for a validated model particularly for the Local Transport Plan and the Development (Local) Plan an equal contribution from fee income is appropriate. As such each authority will contribute £78,000 towards this work, creating a total budget of £556,000.

5.9 The first stage of the commission to be funded will be for the model build and future year reference case scenario. This will cost in the region of £500,000. The contract will also include the model hosting, maintenance and operation for the life of the model, so the initial contract length would be for 8 years. The costs for this could take the value of the overall contract up to £2m based on past experience, and this will be funded separately through a combination of third party charges, model access fee income and separate project budgets across the Place Directorate.

6. Issues and Choices

6.1 The NSTM was built in 2008 and rebuilt in 2015 by the former Northamptonshire County Council. The NSTM has reached the end of its life and since the creation of both authorities in 2021 much consideration has been given to how to provide modelling assessment requirements.

6.2 The NSTM has proved to be a valuable source of evidence and a renewed version is expected to remain so in future years. Options considered, alongside the benefits and constraints are set out below;

- Option 1 - Both authorities develop strategic transport models based on the NSTM
- Option 2 - One authority rebuilds the NSTM, with the other paying for use and access to the model
- Option 3 - The model is not rebuilt
- Option 4 – The NSTM is rebuilt jointly, with each authority managing its own version to enable future access, usage and control.

Option	Positive	Negative	Recommendation
1	<ul style="list-style-type: none"> • Maintain individual ownership and control • Establish individual charging models for third party access to the model 	<ul style="list-style-type: none"> • More expensive for rebuilding the model and its ongoing maintenance. Establishment costs of two models is likely to be double the cost of a county wide option. • Potential for the two models to have different assumptions or forecasts complicating any cross-border assessments 	This option is not recommended
2	<ul style="list-style-type: none"> • Clear lines of ownership, single point of contact • Lead authority could establish and update charging model • Regional model would support cross border assessments 	<ul style="list-style-type: none"> • Lead authority takes all the risk • Loss of control of access and unclear future costs for non-lead authority • Funding model for access uncertain 	This option is not recommended
3	<ul style="list-style-type: none"> • S278 funds could be redirected to alternative uses 	<ul style="list-style-type: none"> • The council wouldn't have a valid method of accessing schemes, large development proposals and policies which would limit access to funding, weaken effective development management and reduce planning capabilities. 	This option is not recommended
4	<ul style="list-style-type: none"> • Allows the council full and direct access to the model. • Costs and risks shared. • Continues to allow the authority to charge for 	<ul style="list-style-type: none"> • The councils would need to agree governance arrangements, approach to model rebuild as well as technical assumptions and requirements. 	This option is recommended

	<p>access to the model to third parties.</p> <ul style="list-style-type: none"> • Likely to be most cost-effective approach in terms of model build, maintenance and management cost, as well as officer/project team resource requirements • Supports cross border assessments 	<ul style="list-style-type: none"> • Need to agree third party fee models. 	
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- 6.3 The delivery routes (including the procurement options) were subject to a SWOT analysis considering a breadth of issues around affordability, deliverability and flexibility; as well as both value for money and potential risk.
- 6.4 A joint or regional approach to modelling is not unusual allowing for wider network consideration as well as the cost and resource benefits. However, it is necessary for one authority to be the lead authority, responsible for the procurement of the consultants to undertake the work. It is proposed that the model rebuild is progressed jointly with West Northamptonshire Council the lead procuring authority. With arrangements in place to ensure that North Northamptonshire Council is involved in the governance of the scheme.
- 6.5 The model rebuild will be procured via a competitive process with a national framework, such as the Crown Commercial Services and ESPO. This will ensure best value. Use of such a framework will also reduce risk, and the input required from our legal services compared to an open tender procurement. Use of a framework would also save some time on the commissioning process. Despite the procurement being led by West Northamptonshire Council, both authorities will establish a contract with the appointed consultancy securing individual versions of the model as well as establishing a direct relationship with the appointed consultancy. Once the model is built, each authority will manage access to their version, with any model work by one council being independent of the activity of the other. Provisions within the contract will ensure that if a change within one model is agreed, then it can translated into the other cost effectively.
- 6.6 Given the specialist nature of the work, and to enable the management of this work, it is proposed that a consultant with specialist modelling knowledge is appointed to work on behalf of both councils and will be part of the joint project team managing the update of the model.
- 6.7 Assuming the approval of this report, we will commence procurement of NSTM rebuild. The procurement will also include the ongoing hosting of the model, its management, maintenance and operation of the model for both authorities for their lifetime (approximately 7 years)."
- 6.8 The model will require current traffic survey data to be collected in neutral months (to avoid seasonal effects), therefore this work will be undertaken in Autumn 2023 through each authorities term contract.

- 6.9 The model development, report and forecasts are anticipated to be completed in late Autumn 2024.
- 6.10 An Equality Screening Assessment of this proposal has been undertaken and concluded the scheme has no impact on the protected groups.

7. Implications

7.1 Resources and Financial

- 7.1.1 In March 2020, Northamptonshire County Council approved the allocation of £400,000 of Section 278 reserves and fee income to update of the NSTM. Given the challenges of the pandemic this work was not progressed.
- 7.1.2 Whilst the £400,000 remains committed, both North and West Northamptonshire Councils have identified fee income that can further support this work, this funding will be provided on an equal share basis. Both North Northamptonshire Council and West Northamptonshire Council have each identified £78,000 of NSTM fee income towards this work.
- 7.1.3 It is proposed that the project also funds a consultant with specialist modelling knowledge to be appointed to work alongside this procurement on behalf of both council's and will be part of the joint project team to ensure the works for each party, remains on budget and on time.
- 7.1.4 The model rebuild, associated data gathering and consultant project team support will be delivered within the funding identified above. The costs of ongoing maintenance costs will be funded by fees secured from third party access to the model as happens currently, with any surplus retained for future model revalidations and rebuilds.

7.2 Legal

- 7.2.1 The Northamptonshire Strategic Transport Model (NSTM) is Northamptonshire's traffic model which has not been significantly updated since 2015. Once approved, The NSTM will be used to support the development and implementation of the Local Plan and the Local Transport Plan. Production of a Local Transport Plan is a statutory requirement under the Transport Act 2000 and Local Transport Act 2008.
- 7.2.2 The NSTM will support major scheme business cases for transport infrastructure funding to Government. It will also be important for the effective assessment of large new development applications and substantiating the transport improvements required to mitigate their impact which, in turn, can affect planning obligation requirements secured under s106 legal agreements.
- 7.2.3 To date, legal advice has not been sought for the NSTM proposals as it is a reprocurement of an existing asset/service. If the NSTM proposals are agreed legal advice may be required in relation to the relevant contract procedure.

7.3 Risk

- 7.3.1 There is a risk that if the model isn't updated and the evidence base for the Council's policies do not meet requirements, the council may be unable to demonstrate it's policies are sound. This in turn would impact on the implementation of these plans and inhibits access to funding for delivering transport infrastructure schemes. Furthermore, the council may face difficulties resisting development proposals that come forward outside its Local Plan, and also face difficulties substantiating planning obligations associated with transport improvements.
- 7.3.2 A risk register has been developed as part of the project management process and will ensure risks are identified, recorded and monitored. This will be updated with the model rebuild contractor when they are appointed.

7.4 Consultation and Communications

- 7.4.1 No formal consultation has been undertaken or is required on this proposal. Communications activity will support the various future stages of procurement process.

7.5 Consideration by Overview and Scrutiny

- 7.5.1 Any requests from the Scrutiny Commission will be responded to, and formal engagement or presentations required will take place.

7.6 Climate Impact

- 7.6.1 The updated NSTM will include an emissions module which can utilise information exported from the traffic model to produce emission outputs supporting the development of air quality assessments and reporting to inform carbon impacts in decision making. This will provide a valuable evidence base to test how effective our plans for transport decarbonisation will be.

7.7 Community Impact

- 7.7.1 The updated NSTM will support effective policy and decision-making, and scrutiny, making a significant difference to the delivery of transport infrastructure and services and therefore have an equally significant impact on the local communities.

8. Background Papers

- 8.1 None