

# A57/A628 Mottram – Tintwistle Bypass & A628/A616 Route Restraint Measures

## Public Inquiry

HA Document Reference: HA/78

Update on Progress  
August 2008

# Update on Progress

## 1. Introduction

The aim of this document is to provide an update on the progress in revising the Traffic Model and associated evidence, and to provide details to assist the forward programme.

## 2. Progress

Since the Public Inquiry was adjourned indefinitely, last December, the Project Team has been working on the production of revised traffic forecasts and associated evidence. The revised Environmental Assessment is progressing, some baseline surveys are complete and others are ongoing. Chapters of the Environmental Statement which do not rely on traffic flow are continuing to be updated in line with Volume 11 of the DMRB. The cost estimate for the Scheme has recently been revised using a new range forecasting methodology, and revised economic assessment is ongoing.

## 3. Revised Traffic Forecasts

3.1 The traffic model now incorporates up to date guidance on forecasting, namely NTM 07 and TEMPRO 5.3, as detailed in HA/73. A rigorous checking regime has been formulated and followed.

3.2 Traffic model networks have been updated to include latest information on the existing network and future programmed transport schemes. The Present Year Validation work has included collecting and analysing recent traffic counts and comparing them with traffic model forecasts for the year 2007.

3.3 Many iterations of traffic forecasts for the Scheme have been produced to investigate different route restraint scenarios. These have been used to produce safety forecasts and economic assessments. The revised traffic growth forecasts have produced different forecasts of flows; for example HGV forecasts are generally lower than previously

and LGV forecasts are higher. These effects have been investigated and checked in detail. The information from the many iterations has been used to formulate a compromise by balancing environmental, safety and economic aspects. This compromise result will be discussed with statutory consultees during August prior to proceeding with traffic-dependent environmental assessment work.

3.4 Work is continuing in a progressive manner on the various traffic model forecasts, including Optimistic and Pessimistic forecasts, and traffic model Realism and Sensitivity testing. All results are subject to final approval by the Highways Agency's Traffic Appraisal, Modelling and Economics Group (TAME). The traffic forecasts will be reported in a revised Forecasting Report, which will be issued after review and approval by the Highways Agency's Traffic Appraisal, Modelling and Economics Group (TAME)..

#### **4. Revised Cost Estimate**

4.1 On 16th July, the Secretary of State's announcement of Updated Scheme Costs Estimates for the Highways Agency Major Roads Programme included revised methodology for estimating the costs of the schemes in the programme, which has the following effect on the cost estimate for this project as shown in the table below.

Current Estimate

Start of Works	Open to Traffic	Range Min		Range Max	
		Base year Prices Q2 2006 (£m)	Out turn Prices (£m)	Base year Prices Q2 2006 (£m)	Out turn Prices (£m)
2012/13	2014/15	171	223	240	315

Previously Approved Estimate

Start of Works	Open to Traffic	Estimate of out turn at Q2 2006 prices
2012/13	2014/15	184

4.2 The revised cost estimate has been prepared using a new range forecasting methodology designed to recognise the risks and uncertainties inherent in the Roads Programme. Details of this methodology are provided in Annex 1.

4.3 This revised cost estimate is being used for the revised economic assessment of the Scheme.

## 5. Consultation

The Highways Agency wants to ensure that the revisions to the Environmental Statement and evidence are explained in the clearest way possible. To that end, a consultation strategy is being developed and will be issued as an HA document in September 2008 detailing the ways that the Highways Agency propose to communicate the revisions to all those involved in the Inquiry and with an interest in the scheme.

## **6. Programme**

6.1 The revised guidance on traffic forecasting (NTM 07 and TEMPRO 5.3) has had a significant effect on traffic forecasts, generally forecasting fewer HGVs and more LGVs than previously, which has required detailed and extensive investigation. The Present Year Validation work has taken much time: both due to collection and analysis of traffic data from various sources, and due to great care being taken to verify and assess results. Individual transport model runs have taken longer than previously due to adoption of tight levels of model convergence to achieve better than recommended values and increase confidence in results: runs take several days. Updated information about Personal Injury Accidents has been obtained and used for safety forecasts. Adoption of revised guidance in Volume 11 of the DMRB has had the effect of enlarging the (environmental) study areas, particularly for Air Quality assessment, where for example roads with forecast traffic flow changes of 1,000 vehicles AADT and/or 200 HGVs are to be considered. Enlarged study areas increase the amount of assessment required which will unfortunately delay production of evidence to the Inquiry. Preparation of the revised Environmental Statement is being progressed, as is the revised Economic Appraisal Report.

6.2 As mentioned above, the Highways Agency wants all interested parties to understand the changes to the evidence, and expects to hold a series of exhibitions, at a variety of locations, in order to achieve this.

6.3 Consequently, it is planned to submit the revised Environmental Statement, the Statement of Case, Economic Appraisal Report and Proofs of Evidence to the Inquiry in May 2009.

## Annex 1

### Range Forecasting Methodology

1. Following a period of escalation in scheme cost estimates, in July 2006 the then Secretary of State appointed Mike Nichols, Chairman and Chief Executive of the Nichols Group, to review the Highways Agency's approach to cost estimating and project management. His report was published in March 2007, making 25 recommendations. All of the recommendations were accepted and a major change programme was initiated which has now been completed.
2. The Nichols review identified that a key factor in the unreliability of the cost estimates was the inherent difficulty of predicting the cost of schemes at an early stage, before options and designs have been fully developed – in many cases up to ten years before a scheme could be delivered. To reflect this, Nichols recommended that future estimates were produced as a range, rather than as a single point estimate.
3. As a key part of the new PCF the HA has implemented a new range forecasting methodology designed to recognise the risks and uncertainties inherent in the Roads Programme. The important change in approach is now to express scheme estimates as a range, rather than a single point estimate. As the project progresses through the lifecycle, risks and issues become better defined, managed and mitigated.
4. To reflect the uncertainties in cost estimation prior to schemes starting construction, cost estimates are being calculated as ranges to reflect realistic minimum and maximum costs. The new project control procedures will ensure that costs are tightly controlled as a scheme is developed. Nevertheless, it is important to emphasise that whilst the central estimate (the mid-point of the range) will be used for planning purposes, those with responsibility for planning, including the Regional assemblies, will need to recognise the possibility that the scheme will outturn anywhere within the range.
5. Each range forecast is built-up from six key elements (see also graphic representation of the range estimate build-up in Figure 2 overleaf):
  - (1) **Base Estimate** – a 'point estimate' for the scheme or option estimated as the risk free cost of all scheme development and construction costs. Typically prepared by the Project Team with the estimate structured according to a standard Work Breakdown Structure. Calculated to a price base of Q2 2006.
  - (2) **Price and Quantum Adjustment** – the Base Estimate is scrutinised and challenged by an HA Central Review Team that has had no role in the development of the Base Estimate. A 'price and quantum' adjustment to the unit rates and quantities upon which the Base Estimate to derive a 'best plausible' and 'worst plausible' estimate. This adjustment is undertaken by the Central Review

Team to ensure consistency of approach across all of the schemes. Calculated to a nominal price base of Q2 2006.

- (3) **Project Risk Provision** – is derived based on the project risk register. The Central Review Team ensures consistency of approach across schemes and quantifies all reasonable foreseeable risks that can best be managed or mitigated by the project team. e.g. adverse weather, availability of plant and materials, unforeseen ground conditions. Calculated to a nominal price base of Q2 2006.
- (4) **Uncertainty Adjustment** – is made by the Central Review Team to make an allowance for all project and programme risks that cannot be reasonably foreseen. This adjustment most closely approximates to the concept of ‘optimism bias’. As the project progresses and design matures, many uncertainties become identifiable risks and over time are either eliminated or become entries on the project or programme risk registers. Calculated to a nominal price base of Q2 2006.
- (5) **Inflation Adjustment** – calculated by the HA Commercial Team and applied consistently across all projects. Roads construction price inflation continues to outstrip retail prices inflation. ‘Best plausible’ and ‘worst plausible’ estimates recalculated to outturn prices based on an assumed construction start date and date of commencement of operations.
- (6) **Programme Risk Provision** - is calculated based on a central programme risk register. The Central Review Team identifies and quantifies all reasonable foreseeable programme risks that can best be managed or mitigated centrally by the HA. A total programme risk provision is then apportioned across all of the projects according to their stage in the PCF

<http://www.dft.gov.uk/pgr/roads/introtoroads/roadcongestion/costestimates.pdf>